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) 2022–26 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 (for operational projects).
- 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 in November and provides a snapshot of information available on projects at that stage in the TIP development. For these reasons, some projects that get evaluated for funding may not appear in the *Universe*, as more project information may become available after this time. In addition, some projects that appear on the Universe list may not be evaluated in a given 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.

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. As has been mentioned throughout this document, 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 now shown in separate tables in this appendix as follows: Bicycle Network and Pedestrian Connections (Table A-3); Community Connections (Table A-5); Complete Streets (Table A-7); Intersection Improvements (Table A-9); and Major Infrastructure (Table A-11).

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 2022–26 TIP for programming in the MPO's Bicycle Network and Pedestrian Connections (Table A-4), Community Connections (Table A-6), Complete Streets (Table A-8), Intersection Improvements (Table A-10), and Major Infrastructure (Table A-12) investment programs are summarized on the following pages.

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 2022–26 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 2022–26 Regional Target projects is included in Chapter 4, and greenhouse gas (GHG) information for these projects is available in Appendix B.


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Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Inner Core									
Complete Streets									
Boston	MassDOT	Reconstruction on Gallivan Boulevard (Route 203), from Neponset Circle to East of Morton Street Intersection	606896	PRC approved (2012)	$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)	$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 (9/28/17)"	$31,036,006	6	Last scored for FFYs 2020-24 TIP.	56	
Boston	MassDOT	Gallivan Boulevard (Route 203) Safety Improvements, from Washington Street to Granite Avenue	610650	PRC approved (2019)	$5,750,000	6		N/A	
Brookline	Brookline	Rehabilitation of Washington Street	610932	PRC approved (2020)	$25,888,631	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	Yes
Chelsea	Chelsea	Reconstruction of Spruce Street, from Everett Avenue to Williams Street	610675	PRC approved (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	N/A	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Chelsea	Chelsea	Park Street & Pearl Street Reconstruction	611983	PRC approved (2021)	$10,451,525	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Chelsea	Chelsea	Reconstruction of Marginal Street	N/A	Pre-PRC	N/A	6		N/A	
Lynn	Lynn	Reconstruction of Western Avenue (Route 107)	609246	PRC approved (2018)	$36,205,000	4	Project programmed in LRTP (FFYs 2025-29) but no longer considered Major Infrastructure by MPO.	76	Yes
Lynn, Salem	MassDOT	Reconstruction of Route 107	608927	PRC approved (2017)	$38,155,000	4	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Melrose	Melrose	Reconstruction of Lebanon Street, from Lynde Street to Malden City Line)	N/A	Pre-PRC	N/A	4	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Newton	Newton	Reconstruction of Washington Street, from Church Street to Chestnut Street	N/A	Pre-PRC	N/A	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Newton, Brookline	MassDOT	Resurfacing and Related Work on Route 9	608821	PRC approved (2017)	$7,337,000	6		N/A	

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 2)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Revere	Revere	Reconstruction of Ocean Ave, Revere Street, and Revere Beach Boulevard	N/A	Pre-PRC	N/A	4	Project at conceptual stage.	N/A	
Saugus	MassDOT	Pedestrian Improvements on Main Street/Route 1	610534	PRC approved (2019)	$1,319,288	4		N/A	
Winthrop	Winthrop	Reconstruction & Improvements on Route 145	609446	PRC approved (2019)	$7,565,512	6		N/A	
Intersection Improvements									
Boston, Brookline	Boston, Brookline	Mountfort St. and Commonwealth Ave. Connection	608956	PRC approved (2017)	$916,883	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)	$7,000,000	6		N/A	
Medford	Medford	Intersection Improvements at Main Street and South Street	611974	PRC approved (2021)	$8,498,000	4	Project location studied by CTPS.	N/A	
Newton	MassDOT	Traffic Signal and Safety Improvements at Interchange 17 (Newton Corner)	609288	PRC approved (2018)	$14,000,000	6		N/A	
Quincy	MassDOT	Intersection Improvements at Route 3A (Southern Artery) and Broad Street	608569	PRC Approved (2016)	$3,132,000	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Quincy	Quincy	Intersection Improvements at Willard Street and Ricciuti Drive	610823	PRC Approved (2020)	$1,544,650	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Bicycle and Pedestrian									
Belmont	Belmont	Community Path, Belmont Component of the MCRT (Phase 1)	609204	PRC approved (2018)	$16,703,600	4		42	Yes
Boston	MassDOT	Leverett Circle Pedestrian Bridge over Route 28, I-93 Ramps and Storrow Drive	606703	PRC approved (2012)	$11,040,000	6		N/A	
Lynn, Nahant	Lynn, Nahant	Northern Strand Extension	610919	25% submitted (7/2/20)	$9,363,750	4	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Major Infrastructure									
Revere, Malden	MassDOT	Improvements on Route 1 (NB) Add-A-Lane	610543	PRC approved (2019)	$7,210,000	4	Project not programmed in LRTP.	N/A	
Somerville	Somerville	McGrath Boulevard Project	607981	PRC approved (2014)	$88,250,000	4	LRTP project (FFYs 2025-29)	74	Yes

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 3)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Minuteman Advisory Group on Interlocal Coordination									
Complete Streets									
Lexington	Lexington	Route 4/225 (Bedford Street) and Hartwell Avenue	N/A	Pre-PRC	$30,557,000	4	LRTP project (FFYs 2030–34). New for FFYs 2021–25 TIP evaluation cycle.		
Intersection Improvements									
Littleton	Littleton	Intersection Improvements at Route 119/Beaver Brook Road	610702	PRC approved (2020)	$3,120,110	3	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Bicycle and Pedestrian									
Concord	Concord	Assabet River Pedestrian Bridge	N/A	Pre-PRC	$2,000,000-$3,600,000	4	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Major Infrastructure									
Acton	MassDOT	Improvements at Route 2 Eastbound Ramps at Route 27	610553	PRC approved (2019)	$3,480,000	3	Project not programmed in LRTP (meets MPO roadway classification requirement). New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Concord	Concord	Reconstruction & Widening on Route 2, from Sandy Pond Road to Bridge over MBTA/B&M Railroad	608015	PRC approved (2014)	$8,000,000	4	Project not programmed in LRTP (meets MPO roadway classification requirement).	N/A	
MetroWest Regional Collaborative									
Complete Streets									
Weston	Weston	Reconstruction on Route 30	608954	25% submitted (10/16/2020)	$8,117,562	6		57	Yes
Intersection Improvements									
Framingham	MassDOT	Roundabout Construction at Salem End Road, Badger Road and Gates Street	609280	PRC approved (2018)	$2,520,000	3		N/A	
Weston	Weston	Intersection Improvements - Boston Post Road (Route 20) at Wellesley Street	608940	25% submitted (5/26/2020)	$1,219,250	6		40	Yes
Bicycle and Pedestrian									
Natick	Natick	Cochituate Rail Trail Extension, from MBTA Station to Mechanic Street	610691	PRC approved (4/30/2020)	$4,500,110	3	New for FFYs 2022-26 TIP evaluation cycle.	N/A	

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 4)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Major Infrastructure									
Framingham	Framingham	Intersection Improvements at Route 126 and Route 135/MBTA and CSX Railroad	N/A	Pre-PRC	$115,000,000	3	LRTP project (FFYs 2030–34).	N/A	
Natick	Natick	Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements	605313	25% submitted (2/12/2020)	$45,097,350	3	LRTP project (FFYs 2025–29). High priority for District 3. 25% design is a resubmission.	66	Yes
North Suburban Planning Council									
Complete Streets									
Burlington, Billerica	MassDOT	Resurfacing and Related Work on Route 3A	610704	PRC approved (2020)	$3,669,400	4	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Lynnfield	Lynnfield	Reconstruction of Summer Street	609381	PRC approved (2019)	$21,521,921	4		N/A	
Reading	Reading	Reading Downtown Improvement Project	N/A	Pre-PRC	$7-$8 million	4	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Wakefield	Wakefield	Main Street Reconstruction	610545	PRC approved (2019)	$26,382,000	4	Project scored as Major Infrastructure for FFYs 2021-25 TIP, but is classified as a Complete Streets project for FFYs 2022-26 TIP (no LRTP programming needed).	59	Yes
Intersection Improvements									
Stoneham	Stoneham	Intersection Improvements at Main Street (Route 38), Franklin Street, and Central Street	N/A	Pre-PRC	N/A	4	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Major Infrastructure									
Burlington	MassDOT	Improvements at I-95 (Route 128)/Route 3 Interchange	609516	PRC approved (2019)	$3,001,500	4		N/A	
Reading	MassDOT	Improvements on I-95	609527	PRC approved (2019)	$14,980,000	4		N/A	
North Shore Task Force									
Complete Streets									
Beverly, Manchester-by-the-Sea	MassDOT	Resurfacing and Related Work on Route 127	607707	PRC approved (2013)	$2,300,000	4		N/A	

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 5)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Danvers	Danvers	Reconstruction on Collins Street, from Sylvan Street to Centre and Holten Streets	602310	75% submitted (3/5/2010)	$5,183,121	4	Updated 75% design submission needed for project to move forward. Last scored for FFYs 2020-24 TIP.	46	
Ipswich	Ipswich	Roadway Improvements on County Street Including Rehabilitation of Bridge I-01-005	611975	PRC approved (2021)	$5,653,500	4	New for FFYs 2022-26 TIP evaluation cycle.	N/A	Yes
Marblehead	Marblehead	Bridge Replacement, M-04-001, Village Street over Marblehead Rail Trail (Harold B. Breare Bridge)	N/A	Pre-PRC	N/A	4	Project at conceptual stage.	N/A	
Manchester-by-the-Sea	Manchester-by-the-Sea	Pine Street - Central Street (Route 127) to Rockwood Heights Road	N/A	Pre-PRC; PNF submitted (12/27/16)	N/A	4		N/A	
Manchester-by-the-Sea	Manchester-by-the-Sea	Bridge Replacement, M-02-001 (8AM), Central Street (route 127) over Saw Mill Brook	610671	PRC approved (2019)	$4,350,000	4		46	Yes
Salem	MassDOT	Reconstruction of Bridge Street, from Flint Street to Washington Street	5399	25% submitted (8/20/04)	$24,810,211	4		N/A	
Salem	Salem	Boston Street Improvements	609437	PRC approved (2019)	$12,480,000	4		69	Yes
Wenham	Wenham	Safety Improvements on Route 1A	609388	PRC approved (2019)	$5,075,000	4		N/A	
Wenham	Wenham	Roadway Reconstruction on Larch Row and Dodges Row	N/A	Pre-PRC	$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)	$2,135,440	4		N/A	
Bicycle and Pedestrian									
Swampscott	Swampscott	Rail Trail Construction	610666	PRC approved (2019)	$7,700,000	4		34	Yes
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)	$4,000,200	5		N/A	
Hull	Hull	Corridor Improvements along Nantasket Avenue from Mountford Road to A Street	N/A	Pre-PRC; PNF submitted (6/30/16)	N/A	5		N/A	

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 6)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Weymouth	MassDOT	Reconstruction on Route 3A, including Pedestrian and Traffic Signal Improvements	608231	PRC approved (2016)	$10,780,100	6		N/A	
Weymouth	MassDOT	Resurfacing and Related Work on Route 3A	608483	PRC approved (2016)	$2,400,000	6		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)	N/A	3		N/A	
Franklin	MassDOT	Resurfacing and Intersection Improvements on Route 140, from Beaver Street to I-495 Ramps	607774	PRC approved (2014)	$4,025,000	3		N/A	
Millis	Millis	Town Center Improvements	N/A	Pre-PRC	N/A	3	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Wrentham	Wrentham	Traffic and Safety Improvement along Route 1	N/A	Pre-PRC	N/A	5	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Intersection Improvements									
Wrentham	Wrentham	Intersection Improvements on Route 1A at North and Winter Street	610676	PRC approved (2019)	N/A	5	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Wrentham	Wrentham	Intersection Improvements at Randall Road and Route 1A	N/A	Pre-PRC	$2,649,000	5	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Wrentham	Wrentham	Downtown Intersection Improvement Project	N/A	Pre-PRC	N/A	5	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Bicycle and Pedestrian									
Hopkinton	Hopkinton	Campus Trail Connector, Shared Use Trail Construction	611932	PRC approved (2020)	$1,750,700	3	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Major Infrastructure									
Bellingham	MassDOT	Ramp Construction & Relocation, I-495 at Route 126 (Hartford Avenue)	604862	PRC approved (2006)	$13,543,400	3	High priority for District 3	N/A	

Table A-1: FFYs 2022-26 Transportation Improvement Program (TIP) Universe of Projects (cont., 7)

Subregion | MPO Investment Program | New project in TIP universe | Project evaluated for FFYs 2021-25 TIP | Project listed in FFYs 2021-25 universe, but not evaluated

Municipality	Project Proponent	Project Name	PROJIS	MassDOT Design Status	Cost Estimate	Highway District	Notes	Previous Evaluation Score	Scores for FFYs 2022-26 TIP?
Wrentham	Wrentham	I-495 North Slip Ramp Improvements at Route 1A	N/A	Pre-PRC	N/A	5	New for FFYs 2022-26 TIP evaluation cycle. Project at conceptual stage.	N/A	
Three Rivers Interlocal Council									
Complete Streets									
Canton, Milton	MassDOT	Roadway Improvements on Route 138	608484	PRC Approved (2016)	$18,467,500	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Milton	MassDOT	Reconstruction on Granite Avenue, from Neponset River to Squantum Street	608406	25% submitted (2/10/17)	$3,665,146	6		N/A	
Milton	Milton	Adams Street Improvements, from Randolph Avenue to Eliot Street	610823	PRC Approved (2020)	$1,544,650	6	New for FFYs 2022-26 TIP evaluation cycle.	N/A	
Westwood	Westwood	Reconstruction of Canton Street and Everett Street	608158	PRC approved (2015)	$2,880,000	6		N/A	
Intersection Improvements									
Milton	Milton	Intersection Improvements - Squantum Street at Adams Street	608955	PRC approved (2017)	$1,192,062	6		33	Yes
Westwood	Westwood	Traffic Signal Improvements on Route 109	608947	25% submitted (6/5/19)	$814,400	6	Revised 25% design needed.	31	
Major Infrastructure									
Canton, Westwood	MassDOT	Interchange Improvements at I-95 / I-93 / University Avenue / I-95 Widening	87790	25% submitted (7/25/14)	$202,205,994	6	Project not programmed in LRTP. Last scored for FFYs 2020-24 TIP.	47	

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
607738	Bedford–Minuteman Bikeway Extension	Bicycle and Pedestrian	Extend the bikeway by making a portion of Railroad Avenue accessible to bikes and by constructing 8,800 feet of bikeway on the Reformatory Branch Trail.	Bedford	2022	N/A	This project is expected to improve safety for bicyclists and pedestrians. It will add approximately two miles to the Minuteman Bikeway. By extending the Boston region's bicycle and pedestrian network, the project is expected to increase non-SOV travel. It is also expected to reduce CO_2 and other transportation-related emissions.
608164	Sudbury–Bruce Freeman Rail Trail, Phase 2D	Bicycle and Pedestrian	Construct a trail from the Concord Town Line to Station Road, including by improving structures and at-grade crossings.	Sudbury	2022	N/A	This project is expected to improve safety for bicyclists and pedestrians. It will add more than four miles to the Bruce Freeman Rail Trail and connect to Phase 2C of the trail. By extending the region's bicycle network, this project is expected to increase non-SOV travel. It is also expected to reduce CO_2 and other transportation-related emissions.
609211	Peabody–Independence Greenway Extension	Bicycle and Pedestrian	Extend the Independence Greenway from the North Shore Mall to central Peabody.	Peabody	2024	N/A	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 CO_2 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	2025	N/A	This project will 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 reduce CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 2)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608887	Bellingham–Rehabilitation and Related Work on Route 126, from Douglas Drive to Route 140	Complete Streets	Improve pavement condition and bicycle and pedestrian accommodations in the project corridor.	Bellingham	2022	N/A	This project is expected to improve safety, including for bicyclists and pedestrians. It will improve more than two lane-miles of NHS pavement. It will also improve sidewalks, add sidewalks, and add bicycle accommodations to the corridor, which may help increase non-SOV travel. This project is also expected to reduce CO_2 and other transportation-related emissions.
608348	Beverly–Rehabilitation of Bridge Street	Complete Streets	Improve the roadway cross section, pavement, signals, and bicycle and pedestrian accommodations in the project corridor.	Beverly	2023	N/A	The project area overlaps a 2015–17 HSIP all-mode crash cluster location, and the project is expected to improve safety performance, including for bicyclists and pedestrians. It includes signal and geometry improvements that may support increased reliability and reduced PHED on nearby Route 62, which is on the NHS. It will also provide bicycle-on-shoulder lanes and improved sidewalks, which may encourage non-SOV travel. This project is also expected to reduce CO_2 and other transportation-related emissions.
606453	Boston–Improvements on Boylston Street	Complete Streets	Improve the roadway cross section, signals, and bicycle and pedestrian accommodations in the project corridor.	Boston	2023	N/A	The project area overlaps a 2015–17 HSIP all-mode crash cluster location and a 2008–17 HSIP bicycle 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 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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 3)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608076	Chelsea–Reconstruction of Broadway, from City Hall to the Revere City Line	Complete Streets	Reconstruct one mile of Broadway, improve sidewalks, and create bicycle accommodations.	Chelsea	2022	N/A	The project area overlaps three 2008–17 HSIP pedestrian crash cluster locations and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve two lane-miles of substandard pavement on the NHS. It will also improve substandard sidewalks and add bicycle lanes in the corridor, which may encourage non-SOV travel. The project is expected to reduce CO_2 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	2024	This project location was studied in "Route 3A Subregional Priority Roadway Study in Cohasset and Scituate" (CTPS, 2014).	The project area overlaps a 2015–17 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 CO_2 and other transportation-related emissions.
607899	Dedham–Pedestrian Improvements along Bussey Street	Complete Streets	Improve the corridor by reconstructing sidewalks, making minor geometric improvements at the at the intersection with Colburn Street and Clisby Avenue, and provide shared bicycle accommodations.	Dedham	2023	N/A	This project is expected to improve transportation safety, including for bicyclists and pedestrians. It will upgrade sidewalks in the project area, which may encourage non-SOV travel. It is expected to reduce CO_2 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	2025	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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 4)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
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	2025	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 CO_2 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	2024	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 of these features may encourage non-SOV travel. The project is also expected to reduce CO_2 and other transportation-related emissions.
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	2024	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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 5)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
609252	Lynn–Rehabilitation of Essex Street	Complete Streets	Make key bicycle and pedestrian safety improvements and operational improvements, such as signal upgrades, in the project corridor.	Lynn	2024	N/A	The project area overlaps four 2015–17 all-mode HSIP crash cluster locations and two 2008–17 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 address reliability needs 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 CO_2 and other transportation-related emissions.
602077	Lynn–Reconstruction on Route 129 (Lynnfield Street)	Complete Streets	Improve safety features, drainage, curbing, pedestrian accommodations, intersection improvements, and other elements in the corridor, which runs from Colonial Avenue to south of Floyd Avenue.	Lynn	2022	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve nearly two lane-miles of substandard pavement on the NHS. It will also upgrade substandard sidewalks and add bicycle lanes to the corridor, which may encourage non-SOV travel. This project is also expected to reduce CO_2 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	2026	N/A	The project area overlaps a 2015–17 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. These improvements are expected to reduce CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 6)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608933	Peabody–Rehabilitation of Central Street	Complete Streets	Reconstruct pavement and sidewalks, provide bicycle accommodations, upgrade signals, and improve other features within the project corridor.	Peabody	2023	N/A	The project area overlaps two 2015–17 all-mode HSIP crash cluster locations, and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve nearly two lane-miles of pavement on the NHS. Improved signals and other elements may address improve reliability on unreliable NHS segments within the project corridor and potentially reduce PHED. The project will upgrade existing sidewalks and add bike lanes; these features are expected to increase non-SOV travel. This project is expected to reduce CO_2 and other transportation-related emissions.
608707	Quincy–Reconstruction of Sea Street	Complete Streets	Improve safety in the project corridor by modifying roadway geometry, upgrading signals, constructing median islands, reconstructing sidewalks, and providing bicycle accommodations.	Quincy	2023	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve sidewalks, which may encourage non-SOV travel. This project is expected to reduce transportation-related pollutants and precursor emissions, including carbon monoxide, nitrous oxide, and volatile organic compounds.
607777	Watertown–Rehabilitation of Mount Auburn Street (Route 16)	Complete Streets	Reconstruct the corridor from the Cambridge city line to east of Watertown Square. Revise roadway geometry; implement a roadway diet, safety improvements, and bicycle and pedestrian accommodations; and upgrade traffic signal equipment.	Watertown	2023–24	This project changes network capacity and is considered regionally significant for air quality modeling.	The project area overlaps one 2015–17 all-mode HSIP crash cluster location, two 2008–17 HSIP pedestrian crash cluster locations, and one 2008–17 HSIP bicycle crash cluster location. The project is expected to improve safety performance, including for bicyclists and pedestrians. This project is expected to improve more than six lane-miles of pavement on the NHS. Signal and other improvements included in the project may improve reliability on unreliable NHS segments within the project corridor and potentially reduce PHED. The project will improve sidewalks and provide bicycle accommodations; these features are expected to increase non-SOV travel. This project is expected to reduce CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 7)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608051	Wilmington (MassDOT)–Reconstruction of Route 38 (Main Street), from Route 62 to the Woburn City Line	Complete Streets	Add bicycle lanes, provide sidewalks, improve traffic signals, and reconstruct turn lanes within the project corridor.	Wilmington	2025–26	Sections of the Route 38 and 129 corridors in Wilmington are identified as priority bottlenecks in the *Destination 2040* Needs Assessment. A portion of this corridor was studied in "Safety and Operations Analysis at Selected Intersections: Main Street at Church Street and Burlington Avenue" (CTPS, 2012).	The project area overlaps a 2015–17 all-mode HSIP crash cluster location. The project is expected to improve safety performance, including for bicyclists and pedestrians. The project will improve over four lane-miles of substandard pavement on the NHS and replace a culvert on the project corridor with a bridge. Signal and geometric improvements included in the project may improve reliability on unreliable NHS segments within the project corridor and potentially reduce PHED. The project will improve existing sidewalks, add new sidewalks, and provide bicycle accommodations—all of these features are expected to increase non-SOV travel. It is expected to reduce CO_2 and other transportation-related emissions.
607244	Winthrop–Revere Street Roadway Improvements	Complete Streets	Reconstruct and reclaim pavement; reconstruct sidewalks; and improve intersections and bicycle and pedestrian accommodations in the project corridor.	Winthrop	2023	N/A	The project area overlaps a 2008–17 HSIP pedestrian crash cluster location, and it is expected to improve safety performance, including for bicyclists and pedestrians. It will improve more than a mile of substandard sidewalks and add bicycle accommodations, which may encourage non-SOV travel. It is expected to reduce CO_2 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	2025	N/A	The project area overlaps a 2015–17 all-mode HSIP crash cluster location and a 2008–17 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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 8)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
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	2024	This project area was studies as part of "Route 1A Corridor Study in Wrentham" (CTPS, 2017).	The project area overlaps two 2015–17 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 CO_2 and other transportation-related emissions.
S12116	128 Business Council–Alewife Wayfinding Improvements	Community Connections	Provide wayfinding measures at the MBTA Alewife station with directional information and real-time shuttle information, alerting passengers of upcoming arrivals and departures and supporting their use of 128 Business Council shuttles.	Cambridge	2022	N/A	This project may encourage non-SOV trips by enhancing amenities and information people can use to access 128 Business Council shuttles. As more people make use of these shuttles, PHED may decrease and reliability may improve on NHS routes in the 128 Business Council service area, including Route 2.
S12122	Acton–Parking Management System	Community Connections	Implement digital parking management products to improve efficiency of permitting and enforcement processes, which will increase convenience for commuters and Acton's internal parking management team.	Acton	2022	N/A	As technology improves, this online parking management portal may be able to provide real-time parking availability information available to commuters. This may help to reduce congestion and potentially PHED in the area surrounding the Acton commuter rail station, which includes NHS roadways, and it may encourage more non-SOV trips by making it easier for drivers to park and access MBTA commuter rail.
S12115	Arlington, Newton, Watertown–BlueBikes Expansion	Community Connections	Install nine BlueBikes bikeshare stations.	Arlington, Newton, Watertown	2022	N/A	This project may increase non-SOV travel by providing a new bicycling option in these municipalities and is expected to reduce CO_2 and other transportation-related emissions.
S12121	Brookline–Transit App Education Program	Community Connections	Provide technology training for older adults to use transit applications (apps) on their smartphones.	Brookline	2022	N/A	This project may increase non-SOV travel in the region by enabling older adults to travel more confidently on foot or by public transit.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 9)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
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	2022–24	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 CO_2 and other transportation-related emissions.
S12119	MBTA–Main Street Transit Signal Priority in Everett and Malden	Community Connections	Update signal equipment to enable transit signal priority on up to nine signals along Main Street in Malden and Everett.	Everett, Malden	2022	N/A	This project is on the NHS and may improve reliability and reduce PHED by improving bus reliability and movement. It may help increase non-SOV travel in the region by making the bus a more attractive travel option in the Main Street corridor. It is expected to reduce CO_2 and other transportation-related emissions.
S12117	MBTA–Systemwide Bike Racks	Community Connections	Increase bicycle parking capacity and improve bicycle parking facilities at up to 40 MBTA stations.	MBTA Systemwide	2022	N/A	This project may increase non-SOV travel in the region by enhancing bicycle amenities and supporting connections to the transit network. It is expected to reduce CO_2 and other transportation-related emissions.
S12118	Malden, Medford–BlueBikes Expansion	Community Connections	Install six BlueBikes bikeshare stations.	Malden, Medford	2022	N/A	This project may increase non-SOV travel by providing a new bicycling option in these municipalities. It is expected to reduce CO_2 and other transportation-related emissions.
S12125	Newton–Microtransit Service	Community Connections	Implement a new dynamically routed microtransit service that will provide shared, first- and last-mile rides between three MBTA rail lines and the Wells Avenue Business District before expanding citywide.	Newton	2021 (past) 2022–23	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 Newton. It is expected to reduce CO_2 and other transportation-related emissions.
S12120	Wellesley–Bicycle Infrastructure	Community Connections	Improve bicycle facilities by installing covered bicycle racks at Wellesley Middle School.	Wellesley	2022	N/A	This project may increase non-SOV travel in the region by enhancing bicycle amenities near MBTA commuter rail stations.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 10)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608229	Acton–Intersection Improvements at Massachusetts Avenue (Route 111) and Main Street (Route 27) (Kelley's Corner)	Intersection Improvements	Add turn lanes, reduce and consolidate curb cuts, improve signage and wayfinding, and provide accommodations for vehicles, bicyclists, and pedestrians.	Acton	2022	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve sidewalks and is expected to add bicycle accommodations, which may encourage non-SOV travel. 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 is expected to reduce CO_2 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	2024	N/A	The project is expected to improve safety performance at a railroad crossing location, including for bicyclists and pedestrians.
608067	Burlington, Woburn–Intersection Reconstruction at Route 3 (Cambridge Road) & 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.	Burlington, Woburn	2025	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 new bike lanes all of which 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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 11)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
608889	Framingham–Traffic Signal Installation at Edgell Road and Central Street	Intersection Improvements	Install traffic signals and make geometric improvements at the intersection of Edgell Road and Central Street. Add bicycle lanes, cross walks, and ensure sidewalks are ADA/AAB-compliant.	Framingham	2023	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It also includes improvements to bicycle and pedestrian accommodations to support non-motorized travel through the intersection, which may encourage non-SOV travel. The project is expected to reduce CO_2 and other transportation-related emissions.
608443	Littleton–Intersection Improvements on Route 2A at Willow Road and Bruce Street	Intersection Improvements	Improve safety and pavement condition by reconstructing the skewed intersection and adding a permanent signal system. Provide crosswalks and bicycle and pedestrian accommodations.	Littleton, Ayer (outside MPO region)	2022	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve more than one-half of a lane-mile of substandard pavement on the NHS. The geometric improvements included in the project are expected to help reduce delay and potentially PHED on the NHS. The project will add shared use paths near the intersection, which may encourage non-SOV travel. It is expected to reduce CO_2 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. Constructing an additional travel lane in each direction on Route 1, lengthen left-turn lanes, upgrade pedestrian crossings and bicycle amenities, and rehabilitate sidewalks.	Norwood	2025–26	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 2015–17 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 CO_2 and other transportation-related emissions.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 12)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
606130	Norwood–Intersection Improvements at Route 1A and Upland Road/ Washington Street and Prospect Street/ Fulton Street	Intersection Improvements	Make intersection improvements at two locations on Route 1A. Install traffic and pedestrian signals and widen Washington Street and Upland Road to accommodate turn lanes. Reconstruct existing sidewalks to meet ADA/AAB standards.	Norwood	2023	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will upgrade existing sidewalks, and add new sidewalks and bicycle accommodations in the project area, all of which may encourage non-SOV travel. The project is expected to reduce CO_2 and other transportation-related emissions.
609253	Wilmington–Intersection Improvements at Lowell Street (Route 129) and Woburn Street	Intersection Improvements	Improve traffic safety and efficiency at the intersection of Lowell Street (Route 129) and Woburn Street by making geometric modifications to the roadway, installing new pedestrian signals, adding crosswalks, and providing bicycle lanes.	Wilmington	2023	Sections of the Route 38 and 129 corridors are identified as priority bottlenecks in the *Destination 2040* Needs Assessment. A portion of this corridor was studied in "Safety and Operations Analysis at Selected Intersections: Main Street at Church Street and Burlington Avenue" (CTPS, 2012).	The project area overlaps a 2015–17 all-mode HSIP crash cluster location and the project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve more than half of a lane-mile 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 existing sidewalks, and it is expected to add new sidewalks and bicycle lanes, all of which may encourage non-SOV travel. The project is expected to reduce CO_2 and other transportation-related emissions.
1570	Green Line Extension to College Avenue with the Union Square Spur*	Major Infrastructure: Flex to Transit	Extend the MBTA Green Line from a relocated Lechmere Station in East Cambridge to College Avenue in Medford, with a branch to Union Square in Somerville.	Cambridge, Medford, and Somerville	2017–2021 (past) 2022	This project is included in *Destination 2040*, the MPO's LRTP, and *Focus40*, the MBTA's 25-year investment plan. This project changes network capacity and is considered regionally significant for air quality modeling.	This project may increase non-SOV travel because it will expand a transit alternative to SOV travel. It may also reduce PHED and improve reliability on the NHS by providing an alternative that supports travel to and from Boston. This project was analyzed as part of a set of recommended LRTP projects, and MPO staff estimate that this set will decrease CO_2 emissions in the region compared to a no-build scenario.

Table A-2: FFYs 2022–26 Regional Target Projects and Their Relationships to Plans and Performance Measures (cont., 13)

ID	Project Name	MPO Investment Program	Project Description	MPO Municipalities	Programming Year (FFY)	Planning Relationships	Relationships to Performance Measures
606226	Boston–Reconstruction of Rutherford Avenue	Major Infrastructure: Roadway	Reconstruct Rutherford Avenue from Sullivan Square to the North Washington Street Bridge to create a multimodal urban boulevard.	Boston	2023–26	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 is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve four NHS bridge structures and more than 11 lane-miles of NHS pavement. The project area overlaps many NHS segments considered to be unreliable, and the project includes changes to roadway geometry and signals that are expected to improve reliability on the NHS and potentially reduce PHED. The project will improve existing sidewalks and is expected to add new sidewalks and a range of bicycle and pedestrian accommodations within the corridor, all of which 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 CO_2 emissions in the region compared to a no-build scenario.
606476	Boston–Sumner Tunnel Reconstruction*	Major Infrastructure: Roadway	Repair existing deterioration in the Sumner Tunnel by reconstructing the roadway pavement, replacing existing jet fans with modern enhancements, and repairing cracking and corrosion on the tunnel's walls and ceiling.	Boston	2022	This project is included in *Destination 2040*, the MPO's LRTP.	This project supports safety by improving the condition of the tunnel. It will improve about two miles of pavement on the NHS network.

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 pavement condition assessment for the project and the its assessment of the portion of the project on the NHS. The IRI thresholds used to classify pavement are based on FFYs 2021–25 TIP criteria: 190 or less (good), 191 to 320 (fair or substandard), greater than 320 (poor or substandard).

* 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. IRI = International Roughness Index. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. N/A = Not Applicable. NHS = National Highway System. Non-SOV = non-single-occupancy vehicle. PHED = peak hours of excessive delay.

Source: Boston Region MPO staff.

Table A-3: FFYs 2022–26 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	

Table A-3: FFYs 2022–26 TIP Evaluation Criteria: Bicycle Network and Pedestrian Connections Program (cont., 2)

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	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
Equity Multiplier?	Yes	Yes	Yes	No
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		

Table A-3: FFYs 2022–26 TIP Evaluation Criteria: Bicycle Network and Pedestrian Connections Program (cont., 2)

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 CO_2 (up to 4 points) +4 300 or more annual tons of CO_2 reduced +3 100–299 annual tons of CO_2 reduced +2 50–99 annual tons of CO_2 reduced +1 Less than 50 annual tons of CO_2 reduced 0 No expected impact -1 Less than 50 annual tons of CO_2 increased -4 50 or more annual tons of CO_2 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	

Table A-3: FFYs 2022–26 TIP Evaluation Criteria: Bicycle Network and Pedestrian Connections Program (cont., 3)

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	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-4: FFYs 2022–26 TIP Project Evaluation Results: Bicycle Network and Pedestrian Connections

	Belmont - Community Path, Belmont Component of the MCRT (Phase 1) [609204]		Swampscott - Rail Trail Construction [610666]	
Bicycle Network and Pedestrian Connections Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
SAFETY: Transportation by all modes will be safe.				
Project improves bicycle safety (up to 7 points)	5	2.5	5	2.5
Project improves pedestrian safety (up to 7 points)	5	2.5	5	2.5
Project improves safety for all users (up to 6 points)	3		3	
Safety Base Score (up to 20 points)	13		13	
Safety Equity Score - Unscaled (up to 14 points)		5		5
SYSTEM PRESERVATION: Maintain and modernize the transportation system and plan for its resiliency.				
Project incorporates resiliency elements into its design (up to 5 points)	2	1	2	1
Improves connectivity to critical facilities (up to 2 points)	2	1	2	1
Project improves existing pedestrian facilities (up to 5 points)	0	0	0	0
Project improves other existing assets (up to 2 points)	1		1	
System Preservation Base Score (up to 14 points)	5		5	
System Preservation Equity Score - Unscaled (up to 12 points)		2		2

Table A-4: FFYs 2022–26 TIP Project Evaluation Results: Bicycle Network and Pedestrian Connections (cont., 2)

	Belmont - Community Path, Belmont Component of the MCRT (Phase 1) [609204]		Swampscott - Rail Trail Construction [610666]	
Bicycle Network and Pedestrian Connections Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy transportation options.				
Project improves pedestrian network and ADA accessibility (up to 9 points)	9	4.5	9	4.5
Project improves bicycle network (up to 9 points)	9	4.5	9	4.5
Capacity Management Base Score (up to 18 points)	18		18	
Capacity Management Equity Score - Unscaled (up to 18 points)		9		9
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.				
Project reduces CO2 (up to 4 points)	1		3	
Project reduces other transportation-related emissions (up to 6 points)	3	1.5	5	2.5
Project enhances natural environment (up to 4 points)	3		4	
Clean Air Base Score (up to 14 points)	7		12	
Clean Air Equity Score - Unscaled (up to 6 points)		1.5		2.5
ECONOMIC VITALITY: Ensure our transportation network provides a strong foundation for economic vitality.				
Project serves sites targeted for future development (up to 4 points)	4		0	
Project serves existing employment and population centers (up to 4 points)	2		4	

Table A-4: FFYs 2022–26 TIP Project Evaluation Results: Bicycle Network and Pedestrian Connections (cont., 3)

	Belmont - Community Path, Belmont Component of the MCRT (Phase 1) [609204]		Swampscott - Rail Trail Construction [610666]	
Bicycle Network and Pedestrian Connections Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Project demonstrates proponent investment (up to 3 points)	1		2	
Project promotes access to affordable housing opportunities (up to 3 points)	2		1	
Economic Vitality Base Score (up to 14 points)	9		7	
Economic Vitality Equity Score (up to 0 points)				
Total Base Score (up to 80 points)	52		55	
Total Equity Score - Unscaled (up to 50 points)		17.5		18.5
Total Equity Score - Scaled (up to 20 points)		7.0		7.4
FINAL SCORE	**59**		**62.4**	

Table A-5: Evaluation Criteria for FFY 2022 Community Connections Program

Project Eligibility Verification			
	Test	**Data to Use**	**Scoring**
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 implementation during FFY 2022 (October 1, 2021-September 30, 2022).	Air Quality Analysis	Varies by type of project	If the project demonstrates an air quality benefit based on the spreadsheet analysis, then it is eligible for funding through the MPO's Community Connections program.
	Proponent's Project Management Capacity	Information from application	If the application provides sufficient information to judge these capabilities, and staff judge the proponent capable, the project is eligible.
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

Table A-5: Evaluation Criteria for FFY 2022 Community Connections Program (cont., 2)

	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
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

Table A-5: Evaluation Criteria for FFY 2022 Community Connections Program (cont., 3)

	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 (15 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 (15 points)	Application materials, CTPS GIS layers	See detailed scoring criteria handout: https://drive.google.com/file/d/11E9VlOqpX-V5QOL2SEstMyvcpd77yhQI/view?usp=sharing
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

Table A-5: Evaluation Criteria for FFY 2022 Community Connections Program (cont., 4)

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

Definitions

Area projects: Those that are geographically defined as a polygon, rather than delivered at a particular point or points. Examples: microtransit covering an entire town, or an education project for a neighborhood.

Point projects: Those that are delivered at a particular point or points and can be geographically defined as such. Examples: bike racks, fixed-route transit (the stops are the points)

Population density concentration: any TAZ with more than 4,000 people per square mile.

Employment density concentration: any TAZ with more than 4,000 jobs per square mile

Frequent service: Follows the MBTA Service Delivery Policy. Stops with frequent service defined are defined in a CTPS layer used in pilot round CC scoring and for the Destination 2040 Needs Assessment. This layer measures frequency at the stop level rather than the route level; that is, a stop with four buses per hour, from two different routes, is considered a frequent stop.

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-6: FFY 2022 Project Evaluation Results: Community Connections

Project Type (Point/Area)		Point Projects									Area Projects			
Project Name (Municipality/Proponent)		BlueBikes Expansion (Malden, Medford)	Main Street Transit Signal Priority (Everett, Malden)	Watertown Shuttle Service (Watertown)	Salem Street Transit Signal Priority (Malden)	MBTA Systemwide Bicycle Racks (MBTA)	Transit App Education Program (Brookline)	Wellesley Bicycle Infrastructure (Wellesley)	Stow Shuttle (Stow)	Acton Parking Management System (Acton)		Salem Skipper Microtransit Service (Salem)	Montachusett RTA Microtransit Service (MART)	Everett Citywide Transportation Management Association (Everett)	Boston Microtransit Service (Boston)
Criterion	Maximum Points Possible	Points Awarded									Maximum Points Possible	Points Awarded			
Project eligibility verification															
Passes AQ Analysis (y/n)	**Y**	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Project proponent has staff capacity (y/n)	**Y**	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Network/Connectivity Value															
Connection to existing activity hubs and residential developments	**6**	6	6	6	6	6	6	4.75	0.5	0	9	8	2	8	8
Connection to existing transit hubs	**6**	6	5	6	6	6	6	2	2	3	9	6	6	9	9
Connection to other transportation infrastructure	**6**	6	6	6	6	6	2	2	1	6	N/A	N/A	N/A	N/A	N/A
Coordination or cooperation between multiple entities															
Number of collaborating entities	**9**	3	6	3	3	0	3	0	0	0	9	9	6	9	0

Table A-6: FFY 2022 Project Evaluation Results: Community Connections (cont., 2)

Project Type (Point/Area)		Point Projects									Area Projects			
Project Name (Municipality/Proponent)		BlueBikes Expansion (Malden, Medford)	Main Street Transit Signal Priority (Everett, Malden)	Watertown Shuttle Service (Watertown)	Salem Street Transit Signal Priority (Malden)	MBTA Systemwide Bicycle Racks (MBTA)	Transit App Education Program (Brookline)	Wellesley Bicycle Infrastructure (Wellesley)	Stow Shuttle (Stow)	Acton Parking Management System (Acton)		Salem Skipper Microtransit Service (Salem)	Montachusett RTA Microtransit Service (MART)	Everett Citywide Transportation Management Association (Everett)	Boston Microtransit Service (Boston)
Criterion	Maximum Points Possible	Points Awarded									Maximum Points Possible	Points Awarded			
Project consists of collaborators from multiple sectors	**3**	0	0	0	0	0	0	0	0	0	3	3	3	3	3
Each listed collaborator has provided a formal letter of support to the MPO	**3**	3	3	3	3	0	3	0	0	0	3	0	3	0	0
Inclusion in and consistency with local and regional plans															
Inclusion in local plans	**6**	3	6	3	6	6	0	3	3	3	6	6	3	6	3
Inclusion in MPO plans	**6**	3	6	3	3	6	6	3	3	3	6	3	3	3	3
Inclusion in statewide plans	**3**	0	3	0	0	0	0	0	0	0	3	0	0	0	0
Project serves a demographic of transportation equity concern, as identified by the MPO															
Project serves a demographic of transportation equity concern, as identified by the MPO	**15**	9	12	9	9	12	9	6	6	6	15	9	9	9	15

Table A-6: FFY 2022 Project Evaluation Results: Community Connections (cont., 3)

Project Type (Point/Area)		Point Projects										Area Projects			
Project Name (Municipality/Proponent)		BlueBikes Expansion (Malden, Medford)	Main Street Transit Signal Priority (Everett, Malden)	Watertown Shuttle Service (Watertown)	Salem Street Transit Signal Priority (Malden)	MBTA Systemwide Bicycle Racks (MBTA)	Transit App Education Program (Brookline)	Wellesley Bicycle Infrastructure (Wellesley)	Stow Shuttle (Stow)	Acton Parking Management System (Acton)		Salem Skipper Microtransit Service (Salem)	Montachusett RTA Microtransit Service (MART)	Everett Citywide Transportation Management Association (Everett)	Boston Microtransit Service (Boston)
Criterion	Maximum Points Possible	Points Awarded									Maximum Points Possible	Points Awarded			
Mode shift															
Various	**12**	12	12	7	12	12	4	12	6	2	12	7	10	8	4
Demand projections															
Overall Estimate	**6**	6	0	6	0	0	0	0	3	3	6	6	6	0	3
Evaluation of Estimate	**6**	6	0	3	0	0	0	0	3	3	6	6	6	0	6
Budget sheet															
Absent/Present/ Incomplete	**10**	10	10	10	10	10	10	10	10	0	10	10	10	10	10
Grand Total	**97**	**73**	**72**	**65**	**64**	**64**	**49**	**42.75**	**37.5**	**29**	**97**	**73**	**67**	**65**	**64**

Table A-7: FFYs 2022–26 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 +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) +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	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		

Table A-7: FFYs 2022–26 TIP Evaluation Criteria: Complete Streets Program (cont., 2)

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

Table A-7: FFYs 2022–26 TIP Evaluation Criteria: Complete Streets Program (cont., 3)

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		

Table A-7: FFYs 2022–26 TIP Evaluation Criteria: Complete Streets Program (cont., 4)

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					

Table A-7: FFYs 2022–26 TIP Evaluation Criteria: Complete Streets Program (cont., 5)

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 2022–26 TIP Project Evaluation Results: Complete Streets

	Brookline - Rehabilitation of Washington Street [610932]		Chelsea - Park Street & Pearl Street Reconstruction [611983]		Ipswich - Roadway Improvements on County Street [611975]		Lynn - Reconstruction of Western Avenue (Route 107) [609246]		Manchester-by-the-Sea - Bridge Replacement, M-02-001 (8AM), Central Street (Route 127) Over Saw Mill Brook [610671]		Salem - Boston Street Improvements [609437]		Wakefield - Main Street Reconstruction [610545]		Weston - Reconstruction on Route 30 [608954]	
Complete Streets Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
SAFETY: Transportation by all modes will be safe.																
Project addresses severe-crash location (up to 3 points)	2	1	2	2	1	0.5	3	3	1	0.5	2	1.5	2	1	2	1
Project addresses high-crash location (up to 3 points)	3		3		1		3		3		2		3		0	
Project addresses truck-related safety issue (up to 2 points)	1		1		1		2		0		1		0		2	
Project improves bicycle safety (up to 3 points)	3	1.5	2	2	1	0.5	2	2	0	0	2	1.5	2	1	2	1
Project improves pedestrian safety (up to 3 points)	3	1.5	3	3	2	1	3	3	2	1	2	1.5	3	1.5	2	1
Project improves safety for all users (up to 4 points)	2		2		1		3		1		3		3		3	
Safety Base Score (up to 18 points)	14		13		7		16		7		12		13		11	
Safety Equity Score - Unscaled (up to 9 points)		4		7		2		8		1.5		4.5		3.5		3
SYSTEM PRESERVATION: Maintain and modernize the transportation system and plan for its resiliency.																
Project incorporates resiliency elements into its design (up to 5 points)	2	1	4	4	2	1	3	3	3	1.5	5	3.75	3	1.5	2	1

Table A-8: FFYs 2022–26 TIP Project Evaluation Results: Complete Streets (cont., 2)

	Brookline - Rehabilitation of Washington Street [610932]		Chelsea - Park Street & Pearl Street Reconstruction [611983]		Ipswich - Roadway Improvements on County Street [611975]		Lynn - Reconstruction of Western Avenue (Route 107) [609246]		Manchester-by-the-Sea - Bridge Replacement, M-02-001 (8AM), Central Street (Route 127) Over Saw Mill Brook [610671]		Salem - Boston Street Improvements [609437]		Wakefield - Main Street Reconstruction [610545]		Weston - Reconstruction on Route 30 [608954]	
Complete Streets Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Improves evacuation route (up to 1 point)	0		0		0		0		1		1		0		0	
Improves connectivity to critical facilities (up to 1 point)	1	0.5	1	1	1	0.5	1	1	1	0.5	1	0.75	1	0.5	1	0.5
Project improves existing transit assets (up to 2 points)	1	0.5	1	1	0	0	1	1	0	0	1	0.75	1	0.5	0	0
Project improves existing pedestrian facilities (up to 3 points)	2	1	3	3	3	1.5	3	3	3	1.5	2	1.5	0	0	3	1.5
Project improves existing bridges (up to 3 points)	0		0		3		0		2		0		0		0	
Project improves existing pavement condition (up to 3 points)	3		3		2		3		3		3		3		2	
Project improves other existing assets (up to 2 points)	2		2		1		2		1		2		2		2	
System Preservation Base Score (up to 20 points)	11		14		12		13		14		15		10		10	
System Preservation Equity Score - Unscaled (up to 11 points)		3		9		3		8		3.5		6.75		2.5		3

Table A-8: FFYs 2022–26 TIP Project Evaluation Results: Complete Streets (cont., 3)

	Brookline - Rehabilitation of Washington Street [610932]		Chelsea - Park Street & Pearl Street Reconstruction [611983]		Ipswich - Roadway Improvements on County Street [611975]		Lynn - Reconstruction of Western Avenue (Route 107) [609246]		Manchester-by-the-Sea - Bridge Replacement, M-02-001 (8AM), Central Street (Route 127) Over Saw Mill Brook [610671]		Salem - Boston Street Improvements [609437]		Wakefield - Main Street Reconstruction [610545]		Weston - Reconstruction on Route 30 [608954]	
Complete Streets Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy transportation options.																
Project reduces transit passenger delay (up to 4 points)	3	1.5	4	4	0	0	2	2	0	0	1	0.75	1	0.5	0	0
Project invests in New Transit Assets (up to 2 points)	2	1	2	2	0	0	1	1	0	0	0	0	0	0	0	0
Project improves pedestrian network and ADA accessibility (up to 4 points)	1	0.5	1	1	4	2	1	1	1	0.5	4	3	1	0.5	4	2
Project improves bicycle network (up to 4 points)	4	2	3	3	4	2	3	3	0	0	4	3	4	2	4	2
Project improves truck movement (up to 3 points)	1		0		0		1		1		1		0		1	
Project addresses unreliable corridor (up to 1 point)	0		1		0		0		0		1		0		1	
Capacity Management Base Score (up to 18 points)	11		11		8		8		2		11		6		10	
Capacity Management Equity Score - Unscaled (up to 14 points)		5		10		4		7		0.5		6.75		3		4
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.																
Project reduces CO2 (up to 3 points)	1		1		1		3		0		-1		-1		2	

Table A-8: FFYs 2022–26 TIP Project Evaluation Results: Complete Streets (cont., 4)

	Brookline - Rehabilitation of Washington Street [610932]		Chelsea - Park Street & Pearl Street Reconstruction [611983]		Ipswich - Roadway Improvements on County Street [611975]		Lynn - Reconstruction of Western Avenue (Route 107) [609246]		Manchester-by-the-Sea - Bridge Replacement, M-02-001 (8AM), Central Street (Route 127) Over Saw Mill Brook [610671]		Salem - Boston Street Improvements [609437]		Wakefield - Main Street Reconstruction [610545]		Weston - Reconstruction on Route 30 [608954]	
Complete Streets Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Project reduces other transportation-related emissions (up to 5 points)	3	1.5	3	3	3	1.5	5	5	0	0	-3	-2.25	-3	-1.5	4	2
Project enhances natural environment (up to 4 points)	2		2		4		3		2		4		4		3	
Clean Air Base Score (up to 12 points)	6		6		8		11		2		0		0		9	
Clean Air Equity Score - Unscaled (up to 5 points)		1.5		3		1.5		5		0		-2.25		-1.5		2
ECONOMIC VITALITY: Ensure our transportation network provides a strong foundation for economic vitality.																
Project serves sites targeted for future development (up to 3 points)	3		3		0		3		1		3		2		0	
Project serves existing employment and population centers (up to 3 points)	3		3		3		3		3		3		3		0	
Project demonstrates proponent investment (up to 3 points)	0		1		0		0		2		1		2		1	
Project promotes access to affordable housing opportunities (up to 3 points)	2		3		2		3		1		3		2		2	
Economic Vitality Base Score (up to 12 points)	8		10		5		9		7		10		9		3	
Economic Vitality Equity Score (up to 0 points)																

Table A-8: FFYs 2022–26 TIP Project Evaluation Results: Complete Streets (cont., 5)

	Brookline - Rehabilitation of Washington Street [610932]		Chelsea - Park Street & Pearl Street Reconstruction [611983]		Ipswich - Roadway Improvements on County Street [611975]		Lynn - Reconstruction of Western Avenue (Route 107) [609246]		Manchester-by-the-Sea - Bridge Replacement, M-02-001 (8AM), Central Street (Route 127) Over Saw Mill Brook [610671]		Salem - Boston Street Improvements [609437]		Wakefield - Main Street Reconstruction [610545]		Weston - Reconstruction on Route 30 [608954]	
Complete Streets Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Total Base Score (up to 80 points)	50		54		40		57		32		48		38		43	
Total Equity Score - Unscaled (up to 39 points)		13.5		29		10.5		28		5.5		15.75		7.5		12.0
Total Equity Score - Scaled (up to 20 points)		6.9		14.9		5.4		14.4		2.8		8.1		3.8		6.2
FINAL SCORE	**56.9**		**68.9**		**45.4**		**71.4**		**34.8**		**56.1**		**41.8**		**49.2**	

Table A-9: FFYs 2022–26 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	

Table A-9: FFYs 2022–26 TIP Evaluation Criteria: Intersection Improvements Program (cont., 2)

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

Table A-9: FFYs 2022–26 TIP Evaluation Criteria: Intersection Improvements Program (cont., 3)

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	

Table A-9: FFYs 2022–26 TIP Evaluation Criteria: Intersection Improvements Program (cont., 4)

MPO Goal Area	Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 12 points)						
Criterion	Project reduces CO_2 (up to 3 points) +3 750 or more annual tons of CO_2 reduced +2 250-749 annual tons of CO_2 reduced +1 Less than 250 annual tons of CO_2 reduced 0 No impact -1 Less than 250 annual tons of CO_2 increased -3 250 or more annual tons of CO_2 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				

Table A-9: FFYs 2022–26 TIP Evaluation Criteria: Intersection Improvements Program (cont., 5)

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: FFYs 2022–26 TIP Project Evaluation Results: Intersection Improvements

	Milton - Intersection Improvements Squantum Street at Adams Street [608955]		Weston - Intersection Improvements Boston Post Road (Route 20) at Wellesley Street [608940]	
Intersection Improvements Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
SAFETY: Transportation by all modes will be safe.				
Project addresses severe-crash location (up to 3 points)	1	0.5	2	1
Project addresses high-crash location (up to 3 points)	1		3	
Project addresses truck-related safety issue (up to 2 points)	0		0	
Project improves bicycle safety (up to 4 points)	2	1	2	1
Project improves pedestrian safety (up to 4 points)	3	1.5	3	1.5
Project improves safety for all users (up to 5 points)	2		3	
Safety Base Score (up to 21 points)	9		13	
Safety Equity Score - Unscaled (up to 9 points)		3		3.5
SYSTEM PRESERVATION: Maintain and modernize the transportation system and plan for its resiliency.				
Project incorporates resiliency elements into its design (up to 5 points)	1	0.5	2	1
Improves evacuation route (up to 1 point)	0		0	
Improves connectivity to critical facilities (up to 1 point)	1	0.5	1	0.5
Project improves existing transit assets (up to 2 points)	1	0.5	0	0
Project improves existing pedestrian facilities (up to 3 points)	2	1	3	1.5

Table A-10: FFYs 2022–26 TIP Project Evaluation Results: Intersection Improvements (cont., 2)

	Milton - Intersection Improvements Squantum Street at Adams Street [608955]		Weston - Intersection Improvements Boston Post Road (Route 20) at Wellesley Street [608940]	
Intersection Improvements Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Project improves existing pavement condition (up to 3 points)	2		2	
Project improves other existing assets (up to 2 points)	1		1	
System Preservation Base Score (up to 17 points)	8		9	
System Preservation Equity Score - Unscaled (up to 11 points)		2.5		3
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy transportation options.				
Project reduces transit passenger delay (up to 4 points)	-1	-0.5	0	0
Project invests in New Transit Assets (up to 2 points)	1	0.5	1	0.5
Project improves pedestrian network and ADA accessibility (up to 4 points)	1	0.5	4	2
Project improves bicycle network (up to 4 points)	3	1.5	2	1
Project improves truck movement (up to 3 points)	0		2	
Project addresses unreliable corridor (up to 1 point)	1		1	
Capacity Management Base Score (up to 18 points)	5		10	
Capacity Management Equity Score - Unscaled (up to 14 points)		2		3.5

Table A-10: FFYs 2022–26 TIP Project Evaluation Results: Intersection Improvements (cont., 3)

	Milton - Intersection Improvements Squantum Street at Adams Street [608955]		Weston - Intersection Improvements Boston Post Road (Route 20) at Wellesley Street [608940]	
Intersection Improvements Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.				
Project reduces CO2 (up to 3 points)	1		1	
Project reduces other transportation-related emissions (up to 3 points)	3	1.5	3	1.5
Project enhances natural environment (up to 4 points)	0		2	
Clean Air Base Score (up to 12 points)	4		6	
Clean Air Equity Score - Unscaled (up to 5 points)		1.5		1.5
ECONOMIC VITALITY: Ensure our transportation network provides a strong foundation for economic vitality.				
Project serves sites targeted for future development (up to 3 points)	0		0	
Project serves existing employment and population centers (up to 3 points)	3		0	
Project demonstrates proponent investment (up to 2 points)	0		0	
Project promotes access to affordable housing opportunities (up to 3 points)	1		2	
Economic Vitality Base Score (up to 12 points)	4		2	
Economic Vitality Equity Score (up to 0 points)				

Table A-10: FFYs 2022–26 TIP Project Evaluation Results: Intersection Improvements (cont., 4)

	Milton - Intersection Improvements Squantum Street at Adams Street [608955]		Weston - Intersection Improvements Boston Post Road (Route 20) at Wellesley Street [608940]	
Intersection Improvements Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Total Base Score (up to 80 points)	30		40	
Total Equity Score - Unscaled (up to 41 points)		9		11.5
Total Equity Score - Scaled (up to 20 points)		4.4		5.6
FINAL SCORE	**34.4**		**45.6**	

Table A-11: FFYs 2022–26 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 interchange 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 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		

Table A-11: FFYs 2022–26 TIP Evaluation Criteria: Major Infrastructure Program (cont., 2)

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

Table A-11: FFYs 2022–26 TIP Evaluation Criteria: Major Infrastructure Program (cont., 3)

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		

Table A-11: FFYs 2022–26 TIP Evaluation Criteria: Major Infrastructure Program (cont., 4)

MPO Goal Area	Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 12 points)							
Criterion	Project reduces CO_2 (up to 3 points) +3 750 or more annual tons of CO_2 reduced +2 250-749 annual tons of CO_2 reduced +1 Less than 250 annual tons of CO_2 reduced 0 No impact -1 Less than 250 annual tons of CO_2 increased -3 250 or more annual tons of CO_2 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					

Table A-11: FFYs 2022–26 TIP Evaluation Criteria: Major Infrastructure Program (cont., 5)

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-12: FFYs 2022–26 TIP Project Evaluation Results: Major Infrastructure

	Natick - Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements [605313]		Somerville - McGrath Boulevard Project [607981]	
Major Infrastructure Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
SAFETY: Transportation by all modes will be safe.				
Project addresses severe-crash location (up to 3 points)	3	1.5	2	1.5
Project addresses high-crash location (up to 3 points)	3		1	
Project addresses truck-related safety issue (up to 2 points)	1		0	
Project improves bicycle safety (up to 3 points)	2	1	3	2.25
Project improves pedestrian safety (up to 3 points)	2	1	3	2.25
Project improves safety for all users (up to 4 points)	2		4	
Safety Base Score (up to 18 points)	13		13	
Safety Equity Score - Unscaled (up to 9 points)		3.5		6
SYSTEM PRESERVATION: Maintain and modernize the transportation system and plan for its resiliency.				
Project incorporates resiliency elements into its design (up to 5 points)	1	0.5	3	2.25
Improves evacuation route (up to 1 point)	0		1	
Improves connectivity to critical facilities (up to 1 point)	1	0.5	1	0.75
Project improves existing transit assets (up to 2 points)	0	0	1	0.75

Table A-12: FFYs 2022–26 TIP Project Evaluation Results: Major Infrastructure (cont., 2)

	Natick - Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements [605313]		Somerville - McGrath Boulevard Project [607981]	
Major Infrastructure Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Project improves existing pedestrian facilities (up to 3 points)	3	1.5	2	1.5
Project improves existing bridges (up to 3 points)	3		2	
Project improves existing pavement condition (up to 3 points)	2		3	
Project improves other existing assets (up to 2 points)	2		2	
System Preservation Base Score (up to 20 points)	12		15	
System Preservation Equity Score - Unscaled (up to 11 points)		2.5		5.25
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy transportation options.				
Project reduces transit passenger delay (up to 4 points)	1	0.5	1	0.75
Project invests in New Transit Assets (up to 2 points)	0	0	1	0.75
Project improves pedestrian network and ADA accessibility (up to 4 points)	4	2	4	3
Project improves bicycle network (up to 4 points)	4	2	4	3
Project improves truck movement (up to 3 points)	1		0	
Project addresses unreliable corridor (up to 1 point)	1		0	

Table A-12: FFYs 2022–26 TIP Project Evaluation Results: Major Infrastructure (cont., 3)

	Natick - Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements [605313]		Somerville - McGrath Boulevard Project [607981]	
Major Infrastructure Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Capacity Management Base Score (up to 18 points)	11		10	
Capacity Management Equity Score - Unscaled (up to 14 points)		4.5		7.5
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.				
Project reduces CO_2 (up to 3 points)	2		1	
Project reduces other transportation-related emissions (up to 5 points)	4	2	4	3
Project enhances natural environment (up to 4 points)	2		3	
Clean Air Base Score (up to 12 points)	8		8	
Clean Air Equity Score - Unscaled (up to 5 points)		2		3
ECONOMIC VITALITY: Ensure our transportation network provides a strong foundation for economic vitality.				
Project serves sites targeted for future development (up to 3 points)	0		3	
Project serves existing employment and population centers (up to 3 points)	3		3	
Project demonstrates proponent investment (up to 3 points)	0		1	
Project promotes access to affordable housing opportunities (up to 3 points)	3		2	

Table A-12: FFYs 2022–26 TIP Project Evaluation Results: Major Infrastructure (cont., 4)

	Natick - Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements [605313]		Somerville - McGrath Boulevard Project [607981]	
Major Infrastructure Project Scoring	**Base Score**	**Equity Score**	**Base Score**	**Equity Score**
Economic Vitality Base Score (up to 12 points)	6		9	
Economic Vitality Equity Score (up to 0 points)				
Total Base Score (up to 80 points)	50		55	
Total Equity Score - Unscaled (up to 39 points)		12.5		21.8
Total Equity Score - Scaled (up to 20 points)		6.4		11.2
FINAL SCORE	**56.4**		**66.2**	

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived)

<table>
<tr><th>OBJECTIVE</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="3">Reduce the number and severity of crashes, 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>Intersection:
<table><tr><th>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>
Corridor:
<table><tr><th>Evaluation Score</th><th>Interstate Other Freeways Expressways</th><th>Principal Arterials-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>
</table>

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 2)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
	Improves bicycle safety (0–5 points)	+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
	Improves pedestrian safety (0–5 points)	+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
	Improves safety or removes an at-grade railroad crossing (0–5 points)	+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
SAFETY (30 possible points)		

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 3)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
SYSTEM PRESERVATION: 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 (up to 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 (29 possible points)		

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 4)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
CAPACITY MANAGEMENT/MOBILITY: Use existing facility capacity more efficiently and increase healthy 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/MOBILITY (29 possible points)		

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 5)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.		
Reduce GHGs generated in the Boston region by all transportation modes as outlined in the Global Warming Solutions Act Reduce other transportation-related pollutants Minimize negative environmental impacts of the transportation system, when possible Support land-use policies consistent with smart and healthy growth	Reduces CO_2 (-5–5 points)	+5 1,000 or more annual tons of CO_2 reduced +4 500-999 annual tons of CO_2 reduced +3 250-499 annual tons of CO_2 reduced +2 100-249 annual tons of CO_2 reduced +1 Less than 100 annual tons of CO_2 reduced 0 No impact -1 Less than 100 annual tons of CO_2 increased -2 100-249 annual tons of CO_2 increased -3 250-499 annual tons of CO_2 increased -4 500-999 annual tons of CO_2 increased -5 1,000 or more annual tons of CO_2 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 1,000-1,999 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 1,000-1,999 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)		

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 6)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
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 or non-discrimination populations
TRANSPORTATION EQUITY (12 possible points)		

Table A-13: Evaluation Criteria for FFYs 2021–25 TIP and Prior TIP Cycles (Archived) (cont., 7)

OBJECTIVE	CRITERIA	SUBCRITERIA/SCORING
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	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
Prioritize transportation investments consistent with compact-growth strategies of the regional transportation plan	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% of the project cost) +2 Meets or addresses criteria to a medium degree (10-30% of the project cost) +1 Meets or addresses criteria to a low degree (<10% of the project cost) +0 Does not meet or address criteria
ECONOMIC VITALITY (18 possible points)		
TOTAL SCORE (134 possible points)		

Table A-14: Evaluation Criteria for FFY 2021 Community Connections Program (Archived)

Blues = Criteria that apply to all projects

Yellows = Criteria for capital projects

Browns = 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)		
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.

Table A-14: Evaluation Criteria for FFY 2021 Community Connections Program (Archived) (cont., 2)

Blues = Criteria that apply to all projects

Yellows = Criteria for capital projects

Browns = Criteria for operating projects

OBJECTIVE	CRITERIA	FACTORS
	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)		
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.

Table A-14: Evaluation Criteria for FFY 2021 Community Connections Program (Archived) (cont., 3)

Blues = Criteria that apply to all projects

Yellows = Criteria for capital projects

Browns = Criteria for operating projects

OBJECTIVE	CRITERIA	FACTORS
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)		
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.

Table A-14: Evaluation Criteria for FFY 2021 Community Connections Program (Archived) (cont., 4)

Blues = Criteria that apply to all projects

Yellows = Criteria for capital projects

Browns = Criteria for operating projects

OBJECTIVE	CRITERIA	FACTORS
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.
	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.
	Marketing evaluation (1 point)	Presence of plans for an evaluation of the marketing effort.


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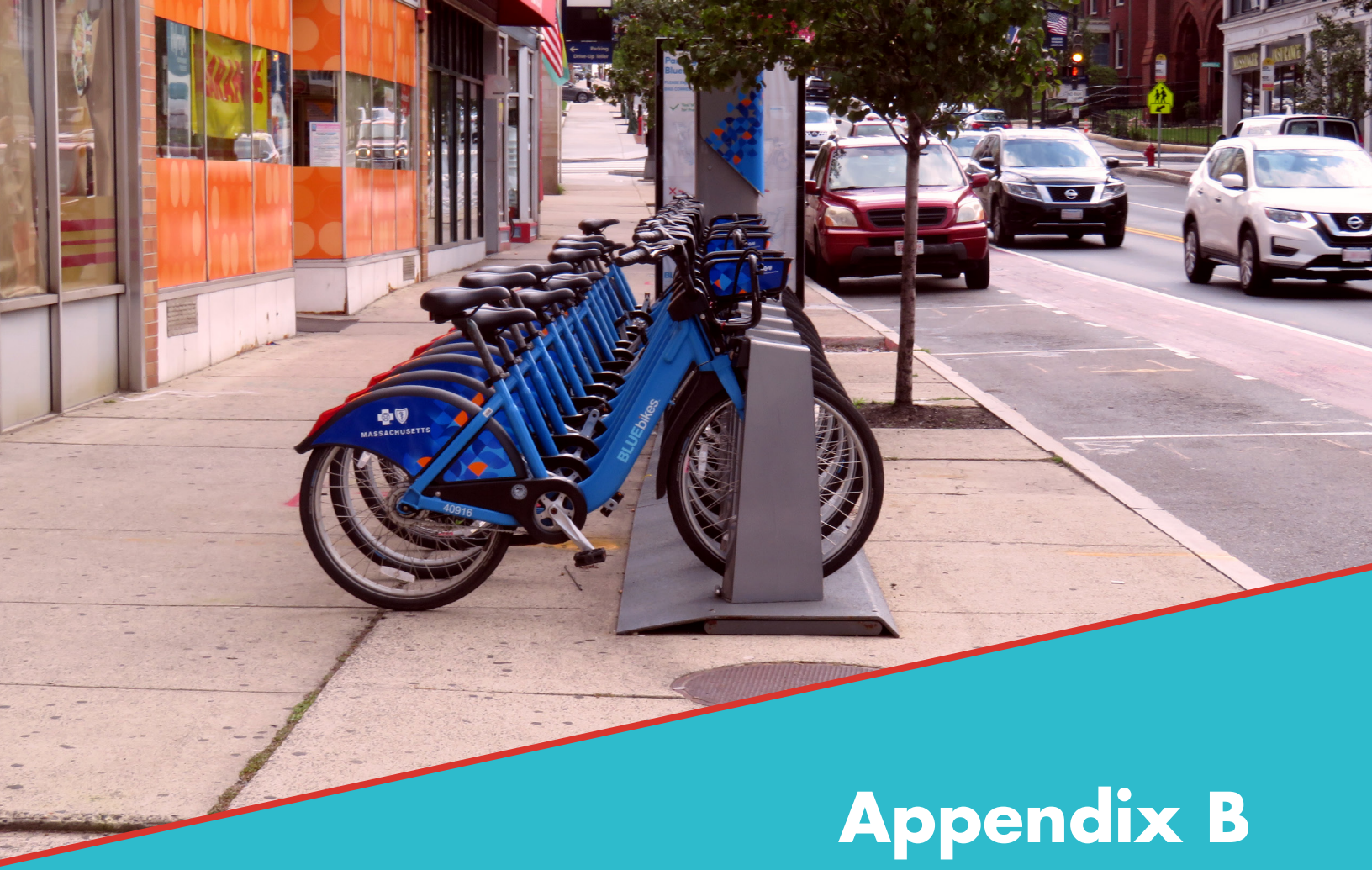


Appendix B

Greenhouse Gas Monitoring and Evaluation

BACKGROUND

The Global Warming Solutions Act of 2008 (GWSA) requires 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 outlines programs to attain the 25 percent reduction by 2020—including a 7.6 percent reduction to be 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, and 2021–25. 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, CO2 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 CO2 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.

TRACKING AND EVALUATING THE TRANSPORTATION IMPROVEMENT PROGRAM

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 2022–26 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; however, there are no projects of these types in this TIP:

- 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, including a description of each project's anticipated CO2 impacts, are discussed in Chapter 3. The following tables display the GHG impact analyses of projects funded in the FFYs 2022–26 Highway Program (Table B-1) and Transit Program (Table B-2). Table B-3 summarizes the GHG impact analyses of highway projects completed in FFYs 2019 through 2021. Table B-4 summarizes the GHG impact analyses of transit projects completed in FFYs 2019 through 2021. 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 2022–26 Programmed Projects

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
S12122	Acton - Acton Parking Management System	Qualitative		Qualitative decrease in emissions
608229	Acton - Intersection and Signal Improvements at Kelley's Corner	Quantified	111,958	Quantified decrease in emissions from Complete Streets project
607748	Acton - Intersection and Signal Improvements on Route 2 and Route 111 (Massachusetts Ave) at Piper Rd and Taylor Rd	Qualitative		Qualitative decrease in emissions
610722	Acton, Boxborough, Littleton - Pavement Preservation Route 2	Qualitative		No assumed impact/negligible impact on emissions
609531	Arlington - Stratton School Improvements (SRTS)	Qualitative		Qualitative decrease in emissions
S12115	Arlington, Newton, Watertown - BlueBikes Expansion	Quantified	6,570	Quantified decrease in emissions from bicycle and pedestrian infrastructure
612099	Ashland - Bridge Replacement, A-14-006, Cordaville Road over Sudbury River	Qualitative		No assumed impact/negligible impact on emissions
608436	Ashland - Rehabilitation and Rail Crossing Improvements on Cherry Street	Qualitative		No assumed impact/negligible impact on emissions
607738	Bedford - Minuteman Bikeway Extension from Loomis St to the Concord Town Line	Quantified	21,098	Quantified decrease in emissions from bicycle and pedestrian infrastructure
608887	Bellingham - South Main St (Route 126) - Douglas Dr to Mechanic St reconstruction (Route 140)	Quantified	24,363	Quantified decrease in emissions from Complete Streets project
608348	Beverly - Reconstruction of Bridge St	Quantified	387,153	Quantified decrease in emissions from Complete Streets project
606902	Boston - Bridge Reconstruction/Rehab, B-16-181, West Roxbury Parkway over MBTA	Qualitative		No assumed impact/negligible impact on emissions
608197	Boston - Bridge Rehabilitation, B-16-107, Canterbury St over Amtrak Railroad	Qualitative		No assumed impact/negligible impact on emissions
604173	Boston - Bridge Replacement, B-16-016, North Washington Street over the Boston Inner Harbor	Qualitative		No assumed impact/negligible impact on emissions
610537	Boston - Ellis Elementary Traffic Calming (SRTS)	Qualitative		Qualitative decrease in 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
606453	Boston - Improvements on Boylston St, from Intersection of Brookline Ave and Park Dr to Ipswich St	Quantified	1,920,790	Quantified decrease in emissions from Complete Streets project
607759	Boston - Intersection Improvements at the VFW Parkway and Spring St	Qualitative		Qualitative decrease in emissions

Table B-1: Greenhouse Gas Regional Highway Project Tracking: FFYs 2022–26 Programmed Projects (cont., 2)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
608943	Boston - Neponset River Greenway Construction, Including New Bridge B-16-309 (C6Y) over Dorchester Bay	Quantified	239,055	Quantified decrease in emissions from bicycle and pedestrian infrastructure
606226	Boston - Reconstruction of Rutherford Ave, from City Square to Sullivan Square	Quantified		LRTP project included in the statewide model
606476	Boston - Roadway, Ceiling, Arch & Wall Reconstruction and Other Control Systems in Sumner Tunnel	Qualitative		No assumed impact/negligible impact on emissions
609090	Boston, Milton, Quincy - Highway Lighting System Replacement on Interstate 93, from Neponset Avenue to the Braintree Split	Qualitative		No assumed impact/negligible impact on emissions
612050	Braintree, Weymouth - Resurfacing and Related Work on Route 3	Qualitative		No assumed impact/negligible impact on emissions
S12121	Brookline - Transit App Education Program	Qualitative		No assumed impact/negligible impact on emissions
612034	Burlington, Woburn - Interstate Maintenance and Related Work on I-95	Qualitative		No assumed impact/negligible impact on emissions
S12116	Cambridge - Alewife Wayfinding Improvements	Qualitative		No assumed impact/negligible impact on emissions
610776	Cambridge - Superstructure Replacement, C-01-031, US Route 3/Route 16/Route 2 over MBTA Red Line	Qualitative		No assumed impact/negligible impact on emissions
609438	Canton - Bridge Replacement, C-02-042, Revere Court over West Branch Neponset River	Qualitative		No assumed impact/negligible impact on emissions
S12114	Canton - Royall Street Shuttle	Qualitative	702,115	Quantified decrease in emissions from new/additional transit service
609053	Canton, Dedham, Norwood - Highway Lighting Improvements at Interstate 93 and Interstate 95/Route 128	Qualitative		No assumed impact/negligible impact on emissions
608599	Canton, Norwood - Stormwater Improvements along Route 1 and Interstate 95	Qualitative		No assumed impact/negligible impact on emissions
608078	Chelsea - Reconstruction on Broadway (Route 107) from City Hall to Revere city line	Quantified	93,278	Quantified decrease in emissions from Complete Streets project
609532	Chelsea - Targeted Safety Improvements and Related Work on Broadway, from Williams Street to City Hall Avenue	Quantified	-25,503	Quantified increase in emissions
608007	Cohasset, Scituate - Corridor Improvements and Related Work on Justice Cushing Highway (Route 3A) from Beechwood St to Henry Turner Bailey Rd	Quantified	5,849	Quantified decrease in emissions from Complete Streets project
608495	Concord, Lexington, Lincoln - Resurfacing and Related Work on Route 2A	Qualitative		No assumed impact/negligible impact on emissions

Table B-1: Greenhouse Gas Regional Highway Project Tracking: FFYs 2022–26 Programmed Projects (cont., 3)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
608818	Danvers - Resurfacing and Related Work on Route 114	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
607899	Dedham - Pedestrian Improvements Along Bussey St, Including Superstructure Replacement, D-05-010, Bussey Street over Mother Brook	Quantified	3,331	Quantified decrease in emissions from bicycle and pedestrian infrastructure
609257	Everett - Reconstruction of Beacham Street	Quantified	4,038	Quantified decrease in emissions from Complete Streets project
S12119	Everett, Malden - Main Street Transit Signal Priority	Quantified	715,743	Quantified decrese in emissions from transit signal priority project
608480	Foxborough - Resurfacing and Related Work on Route 1	Qualitative		No assumed impact/negligible impact on emissions
608889	Framingham - Traffic Signal Installation at Edgell Road and Central Street	Quantified	233,257	Quantified decrease in emissions from Complete Streets project
609402	Framingham, Natick - Resurfacing and Related Work on Route 9	Qualitative		No assumed impact/negligible impact on emissions
609467	Hamilton - Bridge Replacement, H-03-002, Winthrop Street over Ipswich 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
607977	Hopkinton, Westborough - Reconstruction of Interstate 90/Interstate 495 Interchange	Quantified		LRTP project included in the statewide model
605743	Ipswich - Resurfacing and Related Work on Central and South Main Streets	Quantified	4,356	Quantified decrease in emissions from Complete Streets project
609054	Littleton - Reconstruction of Foster Street	Quantified	1,140	Quantified decrease in emissions from Complete Streets project
608443	Littleton, Ayer - Intersection Improvements on Route 2A at Willow Rd and Bruce St	Quantified	52,101	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
602077	Lynn - Reconstruction on Route 129 (Lynnfield Street), from Great Woods Road to Wyoma Square	Quantified	12,761	Quantified decrease in emissions from Complete Streets project
609252	Lynn - Rehabilitation of Essex Street	Quantified	411,394	Quantified decrease in emissions from Complete Streets project
604952	Lynn, Saugus - Bridge Replacement, L-18-016=S-05-008, Route 107 over the Saugus River (AKA - Belden G. Bly Bridge)	Qualitative		No assumed impact/negligible impact on emissions

Table B-1: Greenhouse Gas Regional Highway Project Tracking: FFYs 2022–26 Programmed Projects (cont., 4)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
609060	Lynnfield, Peabody, Danvers - Guide and Traffic Sign Replacement on Interstate 95/Route 128 (Task 'A' Interchange)	Qualitative		No assumed impact/negligible impact on emissions
S12118	Malden, Medford - BlueBikes Expansion	Quantified	2,028	Quantified decrease in emissions from bike share project
612001	Medford - Milton Fuller Roberts Elementary School (SRTS)	Qualitative		Qualitative decrease in emissions
610726	Medford, Winchester, Stoneham - Interstate Pavement Preservation on Interstate 93	Qualitative		No assumed impact/negligible impact on emissions
609530	Medway - Holliston Street and Cassidy Lane Improvements (SRTS)	Qualitative		Qualitative decrease in emissions
608522	Middleton - Bridge Replacement, M-20-003, Route 62 (Maple Street) over Ipswich River	Qualitative		No assumed impact/negligible impact on emissions
608045	Milford - Rehabilitation on Route 16, from Route 109 to Beaver Street	Quantified	-16,555	Quantified increase in emissions
607342	Milton - Intersection and Signal Improvements at Route 28 (Randolph Ave) and Chickatawbut Road	Qualitative		Qualitative decrease in emissions
610680	Natick - Lake Cochituate Path	Quantified	1,749	Quantified decrease in emissions from bicycle and pedestrian infrastructure
611997	Newton - Horace Mann Elementary School Improvements (SRTS)	Qualitative		Qualitative decrease in emissions
S12125	Newton - Newton Microtransit Service	Quantified	24,809	Quantified decrease in emissions from new/additional transit service
610674	Newton - Reconstruction of Commonwealth Avenue	Quantified	16,846	Quantified decrease in emissions from Complete Streets project
609066	Newton, Weston - Multi-Use Trail Connection, from Recreation Road to Upper Charles River Greenway Including Reconstruction of Pedestrian Bridge N-12-078=W-29-062	Quantified	378	Quantified decrease in emissions from bicycle and pedestrian infrastructure
608866	Newton, Weston - Steel Superstructure Cleaning (Full Removal) and Painting of Three bridges: N-12-051, W-29-011, and W-29-028	Qualitative		No assumed impact/negligible impact on emissions
608609	Newton, Westwood - Steel Superstructure Cleaning (Full Removal) and Painting of Two Bridges: N-12-056 and W-31-006	Qualitative		No assumed impact/negligible impact on emissions
605857	Norwood - Intersection Improvements at Route 1 and University Avenue/Everett St	Quantified	1,092,131	Quantified decrease in emissions from traffic operational improvement
606130	Norwood - Intersection Improvements at Route 1A and Upland Road/Washington Street and Prospect Street/Fulton Street	Quantified	131,840	Quantified decrease in emissions from traffic operational improvement

Table B-1: Greenhouse Gas Regional Highway Project Tracking: FFYs 2022–26 Programmed Projects (cont., 5)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
609211	Peabody - Independence Greenway Extension	Quantified	36,651	Quantified decrease in emissions from bicycle and pedestrian infrastructure
610544	Peabody - Multi-Use Path Construction of Independence Greenway at Interstate 95 and Route 1	Quantified	24,423	Quantified decrease in emissions from bicycle and pedestrian infrastructure
608933	Peabody - Rehabilitation of Central St	Quantified	150,913	Quantified decrease in emissions from Complete Streets project
608707	Quincy - Reconstruction of Sea St	Quantified	-30,437	Quantified increase in emissions
608208	Quincy, Milton, Boston - Interstate Maintenance and Related Work on Interstate 93	Qualitative		No assumed impact/negligible impact on emissions
608498	Quincy, Weymouth, Braintree - Resurfacing and Related Work on Route 53	Qualitative		No assumed impact/negligible impact on emissions
609399	Randolph - Resurfacing and Related Work on Route 28	Qualitative		No assumed impact/negligible impact on emissions
S12124	Regionwide - Community Connections Program	Qualitative		No assumed impact/negligible impact on emissions
S12113	Regionwide - Transit Modernization Program	Qualitative		No assumed impact/negligible impact on emissions
S12117	Regionwide - MBTA Systemwide Bike Racks	Quantified	42,656	Quantified decrease in emissions from bicycle infrastructure
612100	Revere - Improvements at Beachmont Veterans Elementary (SRTS)	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
608562	Somerville - Signal and Intersection Improvements on Interstate 93 at Mystic Avenue and McGrath Highway	Qualitative		No assumed impact/negligible impact on emissions
S10780	Somerville, Medford - Green Line Extension Project - Extension to College Ave with the Union Square Spur	Quantified		LRTP project included in the statewide model
612028	Stoneham - Deck Replacement and Superstructure Repairs, S-27-006 (2I2), (ST 28) Fellsway West over Interstate 93	Qualitative		No assumed impact/negligible impact on emissions
610665	Stoneham - Intersection Improvements at Route 28 (Main Street), North Border Road and South Street	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
608164	Sudbury, Concord - Bike Path Construction (Bruce Freeman Rail Trail)	Quantified	49,903	Quantified decrease in emissions from bicycle and pedestrian infrastructure
612076	Topsfield - Bridge Replacement, T-06-013, Perkins Row over Mile Brook	Qualitative		No assumed impact/negligible impact on emissions

Table B-1: Greenhouse Gas Regional Highway Project Tracking: FFYs 2022–26 Programmed Projects (cont., 6)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description
607329	Wakefield-Lynnfield - Rail Trail Extension, from the Galvin Middle School to Lynnfield/Peabody Town Line	Quantified	158,032	Quantified decrease in emissions from bicycle and pedestrian infrastructure
607777	Watertown - Rehabilitation of Mount Auburn St (Route 16)	Quantified	634,598	Quantified decrease in emissions from Complete Streets project
S12120	Wellesley - Bicycle Infrastructure	Quantified	2,069	Quantified decrease in emissions from bicycle infrastructure
607327	Wilmington - Bridge Replacement, W-38-002, Route 38 (Main Street) over the B&M Railroad	Qualitative		No assumed impact/negligible impact on emissions
608929	Wilmington - Bridge Replacement, W-38-003, Butters Row over MBTA	Qualitative		No assumed impact/negligible impact on emissions
608703	Wilmington - Bridge Replacement, W-38-029 (2KV), ST 129 Lowell Street over Interstate 93	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
608051	Wilmington - Reconstruction of Route 38 (Main Street), from Route 62 to the Woburn City Line	Quantified	492,160	Quantified decrease in emissions from Complete Streets project
607244	Winthrop - Reconstruction and Related Work Along Winthrop Street and Revere Street Corridor	Quantified	252,816	Quantified decrease in emissions from Complete Streets project
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
608067	Woburn, Burlington - Intersection Reconstruction at Route 3 (Cambridge Road) & Bedford Road and South Bedford Street	Quantified	168,263	Quantified decrease in emissions from traffic operational improvement
603739	Wrentham - Construction of Interstate 495/Route 1A Ramps	Quantified	1,233,486	Quantified decrease in emissions from traffic operational improvement

Table B-2: Greenhouse Gas Regional Transit Project Tracking: FFYs 2022–26 Programmed Projects

Regional Transit Authority	Project Description	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
CATA	Acquire Shop Equipment / Small Capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	Revenue Vehicle Replacement - 29' Buses/Trolleys (2)	Quantified	TBD	TBD
CATA	Buy Misc. Small Capital Maintenance Items	Qualitative		No assumed impact/negligible impact on emissions
CATA	Repave Admin/Ops Facility Parking Lot	Qualitative		No assumed impact/negligible impact on emissions
CATA	Revenue Vehicle Replacement - 30-foot Bus	Quantified	265	Quantified decrease in emissions from bus replacement
MBTA	Elevator Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line Type 10 Light Rail Fleet Replacement	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Somerville-Medford - Green Line Extension Project - Extension to College Ave with the Union Square Spur	Quantified		LRTP project included in the statewide model
MBTA	Bus Overhaul Program (156 Hybrid, 175 CNG, 45 60ft Hybrid)	Quantified	TBD	TBD
MBTA	Delivery of 40 ft Buses - FY 2021 to FY 2025	Quantified	TBD	TBD
MBTA	Midlife Overhaul of 25 New Flyer Allison Hybrid 60ft Articulated Buses	Qualitative		No assumed impact/negligible impact on emissions
MBTA	156 Hybrid, 175 CNG, 45 60ft Hybrid Bus Overhaul Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Overhaul of 33 Kawasaki 900 Series Bi-Level Coaches	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Procurement of Bi-Level Commuter Rail Coaches	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Red Line No. 3 Car - Targeted Reliability Improv.	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Mattapan HSL Transformation	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Signal Program - Red/Orange Line	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Charlestown Bus - Seawall Rehab	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Harvard Square Busway Repairs	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Harvard/Central Elevator	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Hingham Ferry Dock Modification	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Longfellow Approach	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Bridge Bundling Contract	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Bridges - Design	Qualitative		No assumed impact/negligible impact on emissions
MBTA	East Street Bridge Replacement (Dedham)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Emergency Bridge Design / Inspection & Rating	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Emergency Bridge Repair	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Gloucester Drawbridge Replacement	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Structural Repairs Systemwide	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Tunnel Inspection Systemwide	Qualitative		No assumed impact/negligible impact on emissions

Table B-2: Greenhouse Gas Regional Transit Project Tracking: FFYs 2022–26 Programmed Projects (cont., 2)

Regional Transit Authority	Project Description	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
MBTA	Tunnel Rehab	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line Train Protection	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Locomotive Overhaul	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Alewife Crossing Improvements	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Worcester Line Track Improvements Incl. 3rd Track Feasibility Study	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line Central Tunnel Signal - 25 Cycle	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line Central Tunnel Track and Signal Replacement	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line B-Branch Consolidation	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Infrastructure Asset Management Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Power Systems Resiliency Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	North Station Terminal Signal	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Red Line Interlock Upgrades	Qualitative		No assumed impact/negligible impact on emissions
MBTA	System-Wide Radio	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Codman Yard Expansion and Improvements	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Downtown Crossing Vertical Transportation Improvements Phase 2	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Elevator Program Multiple Location Design	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Braintree and Quincy Adams Garage Rehab	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Lynn Station & Parking Garage Improvements Phase II	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Newton Commuter Rail Stations	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Newton Highlands Green Line Station Accessibility Project	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Forest Hills Improvement Project	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Ruggles Station Improvements Phase 2	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Silver Line Gateway - Phase 2	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Attleboro Station Improvements	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Symphony Station Improvements	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Green Line Surface Station Accessibility I	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Procurement of Battery Electric 40 ft Buses and Related Infrastructure	Quantified	TBD	TBD
MBTA	Dorchester Avenue Bridge	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Widett Layover Facility - Real Estate and Design	Qualitative		No assumed impact/negligible impact on emissions
MBTA	North Station Draw 1 Bridge Replacement	Qualitative		No assumed impact/negligible impact on emissions
MBTA	Worcester Union Station Accessibility Improvements	Qualitative		No assumed impact/negligible impact on emissions

Table B-2: Greenhouse Gas Regional Transit Project Tracking: FFYs 2022–26 Programmed Projects (cont., 3)

Regional Transit Authority	Project Description	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
MBTA	South-Side CR Maintenance Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	AFC Transition - Acquire- Mobile Fare Collection Equipment	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Operating Assistance - Non-Fixed Route ADA Paratransit Service	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Terminal, Intermodal (Transit) - Blandin	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	"Technology Support/Capital Outreach"	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Front Entrance Blandin (FEB) Project	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Back Entrance Blandin (BEB) Project	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Electronic Sign Board	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Acquisition of Bus Support Equip/Facilities	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Revenue Vehicle Replacement	Quantified	TBD	TBD
MWRTA	Vehicle Replacement - Cutaways (11)	Quantified	TBD	TBD
MWRTA	Vehicle Replacement - Cutaways (12)	Quantified	TBD	TBD
MWRTA	Vehicle Replacement - Cutaways (15)	Quantified	TBD	TBD
	Vehicle Replacement - Cutaways (8)	Quantified	TBD	TBD
MWRTA	Framingham Commuter Rail Station Intermodal Hub	Qualitative		Qualitative decrease in emissions
MWRTA	East Street Garage Project	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	CRT North Framingham Bike/Pedestrian Connectivity - Rail Trail Cochituate North Framingham Feasibility Study	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Body Shop	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	Electric Vehicle Migration	Qualitative		Qualitative decrease in emissions
MWRTA	MWRTA - Public Restrooms at Blandin and FCRS Hubs	Qualitative		No assumed impact/negligible impact on emissions

Table B-3: Greenhouse Gas Regional Highway Project Tracking: Completed Projects

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description	FFY of Contract Award
606134	Boston- Traffic Signal Improvements on Blue Hill Ave and Warren St	Qualitative		Qualitative decrease in emissions	2019
608651	Braintree- Adaptive Signal Controls on Route 37 (Granite Street)	Qualitative		Qualitative decrease in emissions	2019
605110	Brookline- Intersection and Signal Improvements at Route 9 and Village Square (Gateway East)	Quantified	67,056	Quantified decrease in emissions from Complete Streets project	2019
605287	Chelsea - Route 1 Viaduct Rehabilitation (Southbound/ Northbound) on C-09-007 and C-09-011	Qualitative		No assumed impact/negligible impact on emissions	2019
600518	Hingham - Intersection Improvements at Derby St, Whiting St, and Gardner St	Quantified	-145,683	Quantified increase in emissions	2019
604952	Lynn-Saugus - Bridge replacement, L-18-016=S-05-008, Route 107 over the Saugus River (AKA – Belden G. Bly Bridge)	Qualitative		No assumed impact/negligible impact on emissions	2019
607133	Quincy - Superstructure Replacement, Q-01-039, Robertson Street over I-93/US 1/SR 3	Qualitative		No assumed impact/negligible impact on emissions	2019
604989	Southborough - Reconstruction of Main St (Route 30), from Sears Rd to Park St	Quantified	231,813	Quantified decrease in emissions from Complete Streets project	2019
608823	Wellesley- Newton- Weston - Pavement Resurfacing and Related Work on I-95	Qualitative		No assumed impact/negligible impact on emissions	2019
609222	Arlington – Spy Pond Sediment Removal	Qualitative		No assumed impact/negligible impact on emissions	2020
604123	Ashland - Reconstruction on Route 126 (Pond St) from Framingham Town Line to Holliston Town Line	Quantified	148,097	Quantified decrease in emissions from Complete Streets project	2020
608347	Beverly - Intersection improvements at 3 locations: Cabot St (Route 1A/97) at Dodge St (Route 1A), County Way, Longmeadow Rd and Scott St, McKay St at Balch St and Veterans Memorial Bridge (Route 1A) at Rantoul, Cabot, Water, and Front Sts	Quantified	582,422	Quantified decrease in emissions from traffic operational improvement	2020
604173	Boston - Bridge Replacement, B-16-016, North Washington Street over the Boston Inner Harbor	Qualitative		No assumed impact/negligible impact on emissions	2020
608608	Braintree - Highway Lighting Improvements at I-93/Route 3 Interchange	Qualitative		No assumed impact/negligible impact on emissions	2020

Table B-3: Greenhouse Gas Regional Highway Project Tracking: Completed Projects (cont., 2)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description	FFY of Contract Award
607954	Danvers - Bridge Replacement, D-03-018, ST 128 over Waters River	Qualitative		No assumed impact/negligible impact on emissions	2020
608378	Danvers, Topsfield, Boxford, Rowley - Interstate Maintenance and Related Work on Interstate 95	Qualitative		No assumed impact/negligible impact on emissions	2020
607428	Hopedale, Milford - Resurfacing and Intersection Improvements on Route 16 (Main St), from Water St West to Approximately 120 Feet West of the Milford/Hopedale Town Line and the Intersection of Route 140	Quantified	201,148	Quantified decrease in emissions from Complete Streets project	2020
606043	Hopkinton - Signal and Intersection Improvements on Route 135	Quantified	1,298,625	Quantified decrease in emissions from Complete Streets project	2020
608275	Malden - Exchange St Downtown Improvement Project	Quantified	13,519	Quantified decrease in emissions from Complete Streets project	2020
608835	Medford - Improvements at Brook Elementary School	Qualitative		Qualitative decrease in emissions	2020
606635	Needham, Newton - Reconstruction of Highland Ave, Needham St and Charles River Bridge, N-04-002, from Webster St (Needham) to Route 9 (Newton)	Quantified	1,186,210	Quantified decrease in emissions from Complete Streets project	2020
609101	Peabody - Pavement Preservation and Related Work on Route 128	Qualitative		No assumed impact/negligible impact on emissions	2020
608205	Reading to Lynnfield - Guide and Traffic Sign Replacement on a Section of I-95 (SR 128)	Qualitative		No assumed impact/negligible impact on emissions	2020
608743	Salem - Improvements at Bates Elementary School	Qualitative		Qualitative decrease in emissions	2020
605342	Stow - Bridge Replacement, Route 62 (Gleasondale Rd) over the Assabet River	Qualitative		No assumed impact/negligible impact on emissions	2020
602261	Walpole - Reconstruction on Route 1A (Main Street), from the Norwood Town Line to Route 27, Includes W-03-024 over the Neponset River	Quantified	230,473	Quantified decrease in emissions from Complete Streets project	2020
608791	Winchester - Improvements at Vinson-Owen Elementary School	Qualitative		Qualitative decrease in emissions	2020
MBTA	Boston - Columbus Avenue Bus Lane Construction	Quantified	98,855	Quantified decrease in emissions from transit priority project	2021*
607888	Boston - Multi-use Path Construction on New Fenway	Quantified	54,724	Quantified decrease in emissions from bicycle and pedestrian infrastructure	2021*

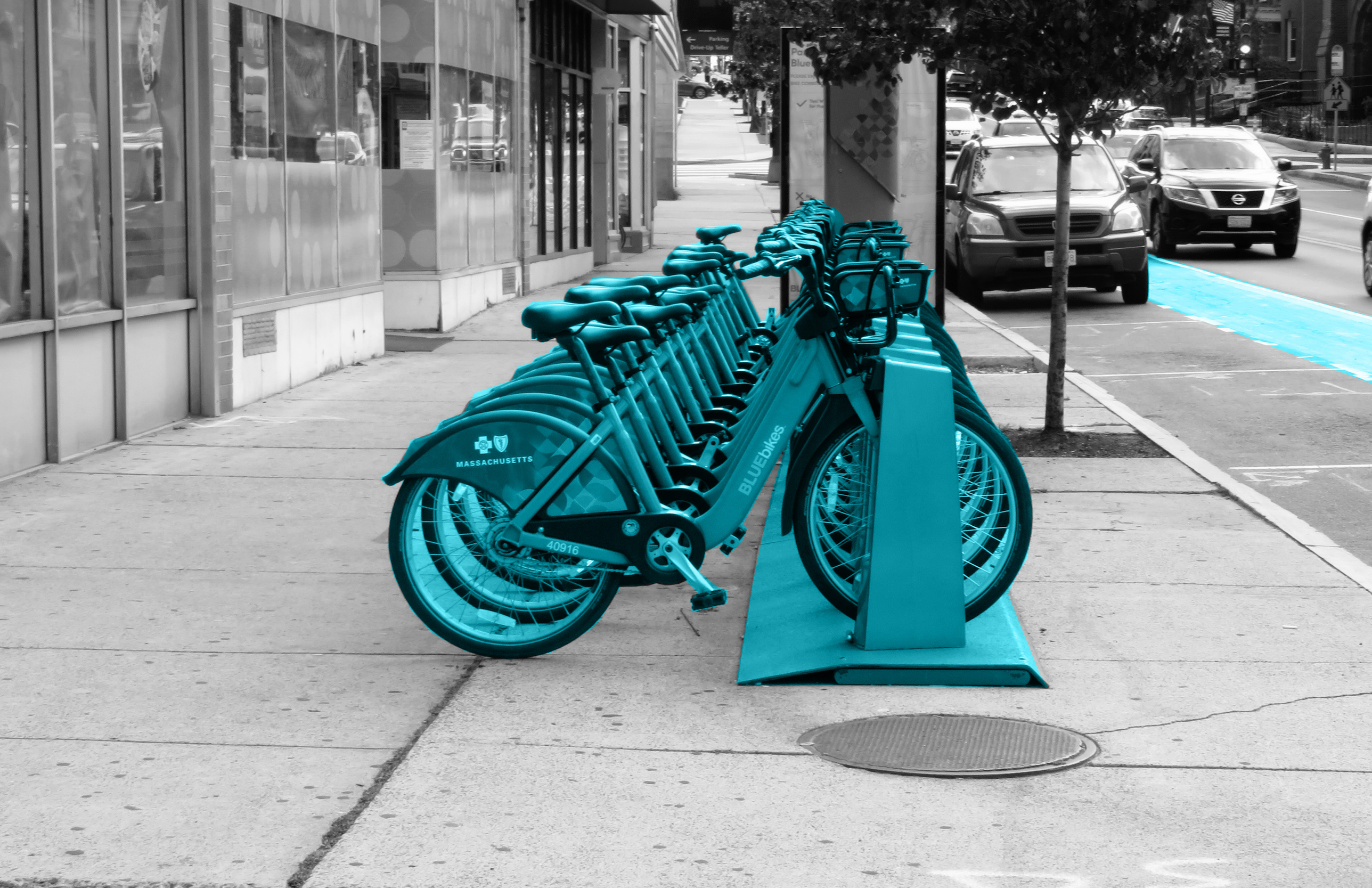
Table B-3: Greenhouse Gas Regional Highway Project Tracking: Completed Projects (cont., 3)

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description	FFY of Contract Award
610724	Chelmsford, Medford, Somerville, Stoneham - Interstate Pavement Preservation on Interstate 93 and Interstate 495	Qualitative		No assumed impact/negligible impact on emissions	2021
S10788	Concord - Bruce Freeman Rail Trail Bike Shelters	Quantified	2,707	Quantified decrease in emissions from bicycle and pedestrian infrastructure	2021*
S10786	Cambridge - Concord Avenue Transit Signal Priority	Quantified	645,520	Quantified decrease in emissions from traffic operational improvement	2021*
607652	Everett - Reconstruction of Ferry St, South Ferry St and a Portion of Elm St	Quantified	435,976	Quantified decrease in emissions from Complete Streets project	2021*
608210	Foxborough, Plainville, Wrentham, Franklin – Interstate Maintenance Resurfacing Work on Interstate 495	Qualitative		No assumed impact/negligible impact on emissions	2021
608228	Framingham - Reconstruction of Union Ave, from Proctor St to Main St	Quantified	-217,978	Quantified increase in emissions	2021*
606501	Holbrook - Reconstruction of Union St (Route 139), from Linfield St to Centre St and Water St	Quantified	4,097	Quantified decrease in emissions from Complete Streets project	2021
601607	Hull - Reconstruction of Atlantic Ave and Related Work	Quantified	6,586	Quantified decrease in emissions from Complete Streets project	2021*
608146	Marblehead - Intersection Improvements at Pleasant St and Village, Vine, and Cross Streets	Quantified	531	Quantified decrease in emissions from traffic operational improvement	2021*
607305	Reading - Intersection Signalization at Route 28 and Hopkins St	Quantified	7,088	Quantified decrease in emissions from traffic operational improvement	2021*
S10787	Sharon - Carpool Marketing	Qualitative		Qualitative reduction in emissions	2021*
S10785	Somerville - Davis Square Signal Improvements	Quantified	4,214	Quantified decrease in emissions from Complete Streets project	2021*
607761	Swampscott - Intersection and Signal Improvements at Route 1A (Paradise Rd) at Swampscott Mall	Qualitative		Qualitative decrease in emissions	2021
604996	Woburn - Bridge Replacement, W-43-017, New Boston Street over MBTA	Quantified		LRTP project included in the statewide model	2021*

*Project is anticipated to be advertised for construction bids in FFY 2021.

Table B-4: Greenhouse Gas Regional Transit Project Tracking: Completed Projects

Regional Transit Authority	Project Description	GHG Analysis Type	GHG CO_2 Impact (kg/yr)	GHG Impact Description	FFY of Contract Award
CATA	Buy Replacement 35-foot Bus (2)	Quantified	40,487	Quantified decrease in emissions from bus replacement	2019
MWRTA	Buy Replacement Capitol Bus	Quantified	1894	Quantified decrease in emissions from bus replacement	2019
CATA	Buy Replacement Van (2)	Quantified	724	Quantified decrease in emissions from bus replacement	2020
MBTA	Option Order Procurement of 194 New Flyer Hybrid 40 ft Buses	Quantified	TBD	TBD	2020
MBTA	Procurement of Battery Electric 40ft Buses and Related infrastructure	Quantified	TBD	TBD	2020
MBTA	Green Line Type 10 Light Rail Fleet Replacement	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	GL B-Branch Infrastructure Improve	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	GL C-Branch Surface Improve	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	GL E-Branch Surface Improve	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Green Line (Non-GLX) Grade Crossings	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Green Line D Branch Track and Signal Replacement	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Braintree and Quincy Adams Garage Rehab	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Forest Hills Improvement Project	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Green Line B-Branch Consolidation	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Natick Center Station Accessibility Project	Qualitative		No assumed impact/negligible impact on emissions	2020
MBTA	Oak Grove Station Vertical Transportation Improvements	Qualitative		No assumed impact/negligible impact on emissions	2020
CATA	Revenue Vehicle Replacement - 30-foot Bus	Quantified	265	Quantified decrease in emissions from bus replacement	2021
MBTA	DMA Replacement	Qualitative		No assumed impact/negligible impact on emissions	2021
MBTA	Norfolk Avenue and East Cottage Street Bridges	Qualitative		No assumed impact/negligible impact on emissions	2021
MBTA	Robert Street Bridge	Qualitative		No assumed impact/negligible impact on emissions	2021
MBTA	45 High Street - Data Center Upgrades	Qualitative		No assumed impact/negligible impact on emissions	2021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Appendix C

Public Outreach and 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/tipdev. 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 2022–26 TIP and comments received during the public review period.

In light of the changing conditions for public engagement due to the COVID-19 pandemic, MPO staff greatly increased the use of virtual public involvement (VPI) tactics such as online workshops and virtual information sessions. All Boston Region MPO meetings throughout the FFYs 2022–26 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. MPO staff have received significant feedback from many stakeholders in support of the continued provision of virtual engagement options going forward.

When in-person MPO meetings resume, staff intend to facilitate a hybrid meeting setup to allow for both in-person and online participation by project proponents and the public. Whenever possible, staff also plan on transitioning outreach events, such as workshops, focus groups, information sessions, and presentations, to a hybrid model. These efforts should 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 outreach activities for the FFYs 2022–26 TIP in September 2020 and maintained communication with municipal, state agency, and public stakeholders throughout the TIP development process. The primary direct-engagement events at which staff received input were the virtual subregional committee meetings held by the Metropolitan Area Planning Council (MAPC) and the TIP How-To virtual information sessions with municipal TIP contacts and Massachusetts Department of Transportation (MassDOT) district project engineers. 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, Twitter, Instagram, 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 2022–26 TIP

Project	Name	Support / Oppose / Request / Concern	Comment
Projects under consideration for TIP funding (FFYs 2022-26)			
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Organization: Belmont Community Path Project Committee	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Provides background on the extensive public engagement done as a part of the project's planning and design process thus far, including numerous public meetings and three public project committees. Addresses the ways in which the Town of Belmont and the project design team have made efforts to directly address the concerns of project abutters.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Organizations: Friends of the Belmont Community Path, Friends of the Mystic to Charles Acton resident: Tom Kelleher Arlington residents: Mike Barry, Charley Blandy, Doug Burdi, Gwen Co-Wallis, Josh Fenollosa, David MacMillan, Bill Reed, Petru Sofio Belmont residents: Molly Aalyson, Phil Abercrombie, Rachel Abercrombie, Leland Ackerson, Adrienne Allen, Kevin Amaratunga, Jennifer Angel, Randy Bak, John Baron, Charles Barry, Sue Bass, Eric Batcho, Claus Becker, Rebecca Benson, Andy Berkheimer, Catherine Bieber, George Bieber, Marty Bitner, Julia Blatt, Maria Bollettino, Kathryn Bonfiglio, Yulia Borukhina, Catherine Bowen, Sharon Bridburg, Dave Brooks, Elizabeth Brown, Jeremy Brown, Audra Burns, Carol Burt	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 2)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): Sara Cabot, Tim Cabot, Katherine Canfield, Alan Cantor, Brian Caputo, Laura Caputo, David Chase, Meryl Cherner, Meg Clough, Edward Cohen, Susan Cohen, Mike Copacnio, Edgar Costa, Michael Costa, James Crawford, Warren Croce, Joseph Crugnale, Michael Curtis, Laurel Damashek, Mark D'Andrea, Mark Davis, Matthew Dezii, John Dieckmann, Nancy Dignan, Marilyn Dorsey, Greg Duckworth, Julien Dugal-Tessier, Lee Dunham, Timothy Dwyer, Grant Ellis, Edward Faulkner, Viva Fisher, Noel Flatt, Travis Franck, Rebecca Frankel, Frank Frazier, Bonnie Friedman, Steve Friedman, Jennifer Frutchy, Xueyan Fu	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): Elizabeth Gallagher, John Gallagher, Sue Garland, Matthew Gasbarro, Lucy Gibson, Daniel Gomez, Elizabeth Gourley, Yumi Grassia, Danielle Green, Mark Green, Peter Grey, Paul Griffin, Susan Griffin, Nina Grimaldi, Tom Grimble, Dan Groszmann, Carl Gruesz, Greg Hall, Justin Hardy, Melissa Hart, Jonathan Hearn, Jeff Held, John Herzfeld, Howard Herzog, Dean Hickman, Jess Hicks, Catherine Costello Hirata, Debora Hoffman, Sean Hogan, Joseph Holt, Alexandra Houck, JoAnn Ignelzi, Melissa Irion, Sarah Isenberg, Radha Iyengar, Katie Janeway, Ann Jansen, Juliet Jenkins, Andrew Jonas, Eric Jones, Meryl Junik	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 3)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): Catherine Karatzas, Barry Kaye, Carol Kean, Jason Ketola, Wolfgang Ketterle, Darrell King, Amy Kirsch, Dan Kirsch, Idith Kisin, Mark Kisin, Kerri Klugman, Jacob Knowles, Brian Kopperl, Saskia Kovac, Max Kraft, Valerie Krempus, Arthur Kreiger, Anne-Marie Lambert, Trevyn Langsford, Andrew Laubscher, Jean Layzer, Jennifer Leigh, Ray Lemieux, Jane Levin, Jeff Levin-Scherz, Linda Levin-Scherz, Mary Lewis, Hannah Liberty, Caroline Light, Ben Lubetsky, Allison Lusis	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): James MacDonald, Michael Macrae, Rhiannon Macrae, Richard Manders, Donna Mayo, Suzanne McCarthy, Andrew McLean, Michael McNamara, Erin McNeill, Marc Melitz, Michelle-Marie Mendez, David Merfeld, William Messenger, Benchun Miao, Diane Miller, Laura Miyakawa, Grant Monahon, Penelope Moore, Kelly Moriarty, David Morris, Suzanne Morris, Robert Mountain, Mike Muller, Steve Muson, Heather Nahas, Azra Nelson, David Nicholson, Dave Nuscher, Daniel Oates, Pat O'Dougherty, Rose O'Neil, Julian Orbanes, Jeffrey Orlin	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 4)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): Tom Parent, Anne Paulsen, Norah Piehl, Aaron Pikcilingis, Sonja Plesset, Susan Polit, Henry Pollakowski, Anne Poulin, Rickland Powell, Jessica Przysiecki, Zac Przysiecki, Dan Pullman, Lisa Pullman, Alexey Radul, Elaine Rancatore, Carice Reddien, Fabrizia Renart, Nicholas Renart, Stephen Ringlee, Paul Roberts, Sean Rogers, Riza Rosales, Vicki Rosenzweig, Josh Rosmarin, John Russell, Susan Samuelson, Brian Saper, Anna Scherbina, Ellen Schreiber, Claire Schuster, Elyse Shuster, Jonathan Schuster, Niti Seth, Joe Shaw, James Sheldon, Judy Sheldon, Philip Shepley, Jeremy Silverfine, Sara Smith, Ruth Smullin, Rich Snow, Nitin Sonawane, Paul Sorkin, Martha Spaulding, Duncan Spelman, Kathleen Spencer, Shawn Szturma	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents (continued): Jasyn Tandy, Leslie Talmadge, Yvette Tenney, Victoria Thatcher, Phil Thayer, Bonne Thompson, David Titus, Ian Todreas, Naomi Tokisue-Stevens, Noriko Tonomura, Marybeth Toomey, Laura VanderHart, John Verrilli, Patricia W., Mark Wagner, Trish Wagner, Mary Wakefield, Sarah Wang, Jeri Weiss, Robin Whitworth, Aaron Wolfe, Elizabeth Woo, Chad Worley, Alan Wright, Roger Wrubel, Julia Yates, Taylor Yates, Torunn Yock, Yong Zhao, Rennie Zimmerman, David Zipkin, Maureen (No last name given)	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 5)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Boston residents: Todd Consentino, Sebi Devlin-Foltz, Anne Griepenburg, George Olson, Marisa Roman, Paula Rougny Brookline residents: Sam Archer, Andrew Fischer, Robert Simpson, Cynthia Snow Cambridge residents: Bence Beky, Anne Brandt, Chris Cassa, Jan Devereux, Mary Dill, Sanjay D'Souza, Brad Harkavy, Kent Johnson, Janie Katz-Christy, Gloria Korsman, Herbert Lees, Gavin Lund, Amy Markham, Bob Mann, Josephine Mullan, Sam Nejame, Natasha Olchanski, Ruthann Rudel, Tim Russell, Jason Sakos, Dennis Scannell, Zev Shapiro, Arthur Strang, Sam Thompson Concord resident: Janet Miller	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Dunstable resident: John Callahan Lexington residents: Andrew Cohen, Alexandra Schweitzer Manchester-by-the-Sea resident: Aileen O'Rourke Medford resident: Amanda Gutowski Melrose resident: Jeff Berlin Natick resident: George Eckert Newton residents: Benjamin Bayes, Bernard Pemstein, Nathan Phillips	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 6)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Somerville residents: Marilyn Altbush, Colin Carroll, Juliana Cherston, Ethan Contini-Field, Jeremy Daniel, Alan Dickens, Jennifer Dorsne, Susannah Ford, Stephanie Galaitsi, Chelsey Graham, Samuel Haymann, Nate Kaufman, Karin Knudson, Doug Lipinski, Paul Morgan, Todd Prokop, Charles Olson, Noelle Selin, Amanda Siuda, Ramu Thiruvamoor, Ian Woloschin Stoneham resident: Marlene Heroux Swampscott resident: Steven Fafel	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Waltham residents: Patrick Allen, Rose Mellion Allen, Eamon Dawes, Barbara Jacobs, Ben Kornstein, Michele Streetman, Tsun Au Yeung Watertown residents: Jess Charlap, Deb Downs, Kendra Eshleman, Alice Holt, Catherine Holt, Dan McKinley, Ellen Menounos, Amy Plovnick, Hannah Rakoff, David Simpson, Steve Smrcina, Rick Stacy, Gail Walker, Lisa Weissmann Wenham resident: John Burns Weston resident: Bruce Cherner Winchester residents: Jeff Dearman, Andrew Schmitt, Phillip Stern, Ian Swope, Roger Wilson	Support	Supports inclusion of the Belmont component of the Mass Central Rail Trail in the FFYs 2022-26 TIP. Benefits of the project include increased connectivity to transit, educational facilities, and local businesses; expansion of the regional bicycle network and the filling in of a missing gap of the MCRT between Cambridge and Waltham; safety improvements for bicyclists and pedestrians; increased mode shift opportunities; increased recreational opportunities; improved health of Path users; and the creation of new public space in Belmont Center. The project will improve safe travel for Belmont students and allow mainly off-road travel into downtown Boston.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 7)

Project	Name	Support / Oppose / Request / Concern	Comment
Community Path, Belmont Component of the MCRT (Phase 1) (#609204)	Belmont residents: Colleen Carney, Cosmo Caterino, Dyanne Cleary, Paul Cobuzzi, Alex Corbett, Kathleen Cowing, Tobey Donahue, Patti Forte, Seth Greenhow, Marko Labudovic, Aleida Leza, Naomi Okugawa, Tommasina Olson, George Sarris, Nancy Sarris, Darin Takemoto, Cindy Taylor, Stephen Trischitta, Merrie Watters, Jessica Whited, Annie Xie, an anonymous abutter Others: Michael Cicalese	Oppose	Opposes the design of the Belmont component of the Mass Central Rail Trail and the project's potential inclusion in the FFYs 2022-26 TIP. States the Town of Belmont and the Community Path Project Committee (CPPC) have not conducted adequate outreach to project abutters, and abutters are not represented at the CPPC. The proposed design, in which the Community Path runs along the north side of the commuter rail tracks, will adversely affect project abutters; the project would abut Belmont High School if moved to the south side of the tracks. Adverse impacts to abutters include noise and light pollution, decreased property values, increased litter, drainage problems, damage to private property including mature trees, and increased crime. Additional concerns include safety issues due to the proximity of the Path to the commuter rail tracks and the project cost.
Rehabilitation of Washington Street (Brookline) (#610932)	Municipal: Rich Benevento, WorldTech Engineering, on behalf of the Town of Brookline	Support	Supports inclusion of the Rehabilitation of Washington Street in the FFYs 2022-26 TIP.
Park Street and Pearl Street Reconstruction (Chelsea) (#611983)	Municipal: Ben Cares, Senior Planner, City of Chelsea	Support	Supports inclusion of the Park and Pearl Street Reconstruction in the FFYs 2022-26 TIP.
Everett Transportation Management Association (Community Connections)	Organizations: Everett Chamber of Commerce, Mystic River Watershed Association, Post Office Corner, Institute for Transportation and Development Policy Municipal: Vineet Gupta, Director of Policy and Planning, Boston Transportation Department	Support	Supports inclusion of the Everett Transportation Management Association (TMA) in the FFYs 2022-26 TIP, as part of the Community Connections Program. The TMA would provide an opportunity to educate residents, employees, and businesses on non-SOV transportation options, including first- and last-mile shuttles and bikeshare programs.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 8)

Project	Name	Support / Oppose / Request / Concern	Comment
Roadway Improvements on County Street including Rehabilitation of I-01-005 (Ipswich) (#611975)	Municipal: Richard Clarke, Director, Ipswich Department of Public Works; Anthony Marino, Ipswich Town Manager; Keith Anderson, Chair, Ipswich Planning Board; Ethan Parsons, Director, Ipswich Planning and Development; Jennifer Hughs, Chair, Ipswich Conservation Commission; Vicki Halmen, Director, Ipswich Water and Wastewater	Support	Supports inclusion of the Roadway Improvements on County Street in the FFYs 2022-26 TIP. Bicyclists and pedestrians frequently travel along the corridor to access adjacent recreational facilities. However, bridges within the project area lack sidewalks, and bicycle facilities are not present within the project area. The proposed project would enhance safety for bicyclists and pedestrians, as well as improve accessibility.
Reconstruction of Western Avenue (Lynn) (#609246)	Municipal: Mayor Tom McGee; Rich Benevento, WorldTech Engineering, on behalf of the City of Lynn	Support	Supports inclusion of the Reconstruction of Western Avenue in the FFYs 2022-26 TIP.
MBTA Salem Street Transit Signal Priority (Community Connections) (Malden)	Municipal: Councillor Stephen Winslow, City of Malden	Support	Supports inclusion of the MBTA Salem Street Transit Signal Priority project in the FFYs 2022-26 TIP.
Boston Street Improvements (Salem) (#609437)	Municipal: Jay Carroll, Roadway Project Manager, City of Salem	Support	Supports inclusion of Boston Street Improvements in the FFYs 2022-26 TIP. The project will create a complete street along approximately one mile of Boston Street, enhancing safety and improving bicycle and pedestrian accommodations along the corridor. The project is advancing quickly through the design process, with 75 percent designs anticipated to be submitted to MassDOT by September 2021.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 9)

Project	Name	Support / Oppose / Request / Concern	Comment
Salem Skipper Microtransit Service (Community Connections)	Legislative: Rep. Paul Tucker Municipal: David Kucharsky, Director, Salem Traffic and Parking; Patricia Zaido, Co-Chair, Salem for All Ages Task Force Salem residents: Nancy Brown, Christine Reichert	Support	Supports inclusion of the Salem Skipper Microtransit Service in the FFYs 2022-26 TIP, as part of the Community Connections Program. Between the service's launch date of December 16, 2020, and February 28, 2021, the Salem Skipper provided approximately three thousand trips. The service allows older adults to more easily travel within the city, and riders generally use the Skipper for essential trips, including grocery shopping, medical appointments, and after-school activities. Additional funding from the Community Connections program would allow the City to expand this service and build ridership beyond its initial year.
McGrath Boulevard Project (Somerville) (#607981)	Municipal: Brad Rawson, Director, Somerville Transportation and Infrastructure Department	Support	Supports inclusion of the McGrath Boulevard project in the FFYs 2022-26 TIP. MassDOT launched the next design phase of the project during the winter of 2020-21, and the project is on track for programming in FFY 2026.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 10)

Project	Name	Support / Oppose / Request / Concern	Comment
Swampscott Rail Trail (#610666)	Legislative: Rep. Lori Ehrlich, Sen. Brendan Crighton Municipal: Pamela Angelakis, Superintendent, Swampscott Public Schools; Sean Fitzgerald, Town Administrator; Marzie Galazka, Director, Swampscott Community and Economic Development;Tania Lillak, Chair, Swampscott Open Space and Recreation Plan Committee Organizations: Friends of the Swampscott Rail Trail, Solomon Foundation, Swampscott Conservancy Swampscott residents: Marc Barden, Judy Bevis, Ron Brooks, Ellen James, Greg James, Kristine Keeney, Irene Leamon, Jonathan Leamon, Maggie Raymond, Pete Raymond, Christine Saunders, Scott Saunders, Roger Talkov, Frances Weiner	Support	Supports inclusion of the Swampscott Rail Trail in the FFYs 2022-26 TIP. The project will connect to the Northern Strand Community Trail and the Marblehead Rail Trail, and increase connectivity within Swampscott by providing safe connections to local businesses, transit, and recreational and educational facilities. In addition, the trail will provide open space in a densely populated community and provide opportunities for recreational and healthy activity. The project includes environmental-friendly aspects, including an edible walking forest and pollinator garden. The project is largely supported by community; the Town Meeting approved the project by a vote of 210 to 56.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 11)

Project	Name	Support / Oppose / Request / Concern	Comment
Swampscott Rail Trail (#610666)	Organization: Nason Road Neighborhood Association Swampscott residents: Virginia Booras, Sarah Brogna, Bill Carroll, Maura Carroll, Steven Correnti, Paul Dwyer, Lisa Hayes, Ed Mulvey, Abe Nassar, Kim Nassar, Tom Palleria, Matthew Roddy, Meryl Rose, Clark Sprague, Mary Tuite, Brian Watson, Joan White	Oppose	Opposes inclusion of the Swampscott Rail Trail in the FFYs 2022-26 TIP. Issues raised include the following: - Skepticism that the trail would be used by elementary school students - Current design will not directly connect with the commuter rail - Seeking funding through the TIP; the project was initially proposed to be privately funded - Project is not widely supported by Swampscott residents - Increased cost estimate from an initial $1.5 million; potential inclusion of a pedestrian bridge would increase costs further - National Grid's ownership of a significant portion of the project area - The acquisition of land parcels from residents through eminent domain - Potential damage to conservation land, mature trees, and existing green space - The proposed design will not accommodate emergency vehicles - Skepticism that the project would significantly expand recreational opportunities in the town - Adjacency of the trail to nearby homes
Watertown TMA Shuttles (Community Connections)	Organization: Watertown TMA	Support	Supports inclusion of the Watertown TMA shuttles in the FFYs 2022-26 TIP.
Currently programmed projects (FFYs 2021-25)			
Intersection Improvements at Massachusetts Avenue and Main Street (Kelley's Corner) (Acton) (#608229)	Municipal: Kristen Guichard, Assistant Planner, Town of Acton	Support	Supports continued inclusion of the Intersection Improvements at Kelley's Corner in the FFYs 2022-26 TIP. Notes that the project cost increase is primarily due to the unit price cost for retaining walls, which has gone up significantly.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 12)

Project	Name	Support / Oppose / Request / Concern	Comment
Minuteman Bikeway Extension (Bedford) (#607738)	Legislative: Rep. Michelle Ciccolo Municipal: James Malloy, Town Manager, Lexington; Jeanette Rebecchi, Transportation Program Manager, Bedford ; Sarah Stanton, Town Manager, Bedford	Support	Supports continued inclusion of the Minuteman Bikeway Extension in the FFYs 2022-26 TIP, including the acceleration of the project's schedule from FFY 2023 to FFY 2022. States the Town does not anticipate additional cost increases for the project, and outlines the reasons for the cost difference between the 25 percent and 75 percent design plans. Adds the Bikeway is a vital recreational, tourism, and transportation asset for the region.
Rehabilitation and Related Work on Route 126, from Douglas Drive to Route 140 (Bellingham) (#608887)	Municipal: James Kupfer, Town Planner, Bellingham	Support	Supports continued inclusion of the Rehabilitation of Route 126 in the FFYs 2022-26 TIP. States that the project's development is on schedule, and the right-of-way acquisition warrant will be presented at the May 2021 Town Meeting. The Town anticipates an advertisement date of December 4, 2021.
Rehabilitation of Bridge Street (Beverly) (#608348)	Municipal: Rich Benevento, WorldTech Engineering, on behalf of the City of Beverly	Support	Supports continued inclusion of the Rehabilitation of Bridge Street in the FFYs 2022-26 TIP. The project is scheduled to be advertised in December 2022.
Reconstruction of Broadway, from City Hall to the Revere City Line (Chelsea) (#608078)	Municipal: Ben Cares, Senior Planner, City of Chelsea; Alex Train, Director of Housing and Community Development, City of Chelsea	Support	Supports continued inclusion of the Reconstruction of Broadway in the FFYs 2022-26 TIP. In response to the project's cost increase, the City has been working to value engineer the project to reduce costs to $2.1 million. TIP funding of the project is critical due to the financial impact of the COVID-19 pandemic on the City.
Intersection Improvements at Route 3A/ Summer Street Rotary (Hingham) (#605168)	Municipal: Thomas Mayo, Hingham Town Administrator	Support	Supports continued inclusion of the Intersection Improvements at Route 3A/Summer Street Rotary in the FFYs 2022-26 TIP, and requests reprogramming the project in an earlier TIP year (the project is currently programmed in FFY 2025). The project is a high priority for the Town and its neighboring regions, and the Town continues to advance the project in order to be ready for advertisement in an earlier year.
Reconstruction of Atlantic Avenue (Hull) (#601607)	Municipal: Phil Lemnios, Hull Town Manager	Support	Supports continued inclusion of the Reconstruction of Atlantic Avenue in the FFYs 2022-26 TIP.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 13)

Project	Name	Support / Oppose / Request / Concern	Comment
Reconstruction of Foster Street (Littleton) (#609054)	Municipal: Anthony Ansaldi, Jr., Littleton Town Administrator	Support	Supports continued inclusion of the Reconstruction of Foster Street in the FFYs 2022-26 TIP. States the project is vital to the development of the Littleton commuter rail station area and the continued efforts in expanding the Town's Complete Streets program. The Town engineering consultant has submitted the 75 percent design plans to MassDOT, and is on schedule to submit the 100 percent design plans by July 1, 2021.
Rehabilitation of Essex Street (Lynn) (#609252)	Municipal: Mayor Tom McGee; Rich Benevento, WorldTech Engineering, on behalf of the City of Lynn	Support	Supports continued inclusion of the Rehabilitation of Essex Street in the FFYs 2022-26 TIP, and requests that it remain programmed in FFY 2024.
Reconstruction on Route 129 (Lynnfield Street) (Lynn) (#602077)	Legislative: Sen. Brendan Crighton, Rep. Daniel Cahill, Rep. Peter Capano, Rep. Lori Ehrlich, Rep. Donald Wong Municipal: Mayor Thomas McGee; Andrew Hall, Commissioner, Lynn Department of Public Works	Support	Supports continued inclusion of the Reconstruction on Route 129 in the FFYs 2022-26 TIP, and requests that it remain programmed in FFY 2022. The proposed improvements will address deterioration of the corridor and enhance usage for all roadway users. The project is scheduled for advertisement in March 2022.
MBTA Main Street Transit Signal Priority (Community Connections) (Malden and Everett)	Municipal: Councillor Stephen Winslow, City of Malden	Support	Supports inclusion of the MBTA Main Street Transit Signal Priority project in the FFYs 2022-26 TIP.
BlueBikes Expansion (Community Connections) (Medford and Malden)	Municipal: Councillor Stephen Winslow, City of Malden; Todd Blake, Director of Traffic and Engineering, City of Medford Organization: Medford Bicycle Advisory Committee	Support	Supports inclusion of the BlueBikes expansion project in the FFYs 2022-26 TIP.
Intersection Improvements at Route 1 and University Avenue/Everett Street (Norwood) (#606130)	Municipal: Mark Ryan, Director of Public Works and Town Engineer, Norwood	Support	Supports continued inclusion of the Intersection Improvements at Route 1 and University Avenue/Everett Street in the FFYs 2022-26 TIP. Expresses disappointment that the project has been delayed, but states that the Town is confident that the project will be ready for advertisement in FFY 2023, and requests that the project remain programmed as proposed in FFY 2023.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 14)

Project	Name	Support / Oppose / Request / Concern	Comment
Intersection Improvements at Route 1A and Upland Road/ Washington Street and Prospect Street/ Fulton Street (Norwood) (#605857)	Municipal: Mark Ryan, Director of Public Works and Town Engineer, Norwood	Support	Supports continued inclusion of the Intersection Improvements at Route 1A and Upland Road/ Washington Street and Prospect Street/ Fulton Street in the FFYs 2022-26 TIP. Expresses disappointment that the project has been delayed, but states that the Town is confident that the project will be ready for advertisement in FFY 2025, and requests that the project remain programmed as proposed in FFYs 2025 and 2026.
Multi-use Path Construction of Independence Greenway at I-95 and Route 1 (Peabody) (#610544)	Peabody resident: Travis Wojcik	Support	Supports the continued inclusion of the Route 1 connector segment of the Independence Greenway in the TIP. Highlights the importance of this project in creating connections between the existing segments of the Independence Greenway as well as the Danvers Rail Trail.
Bruce Freeman Rail Trail (Phase 2D) (Sudbury) (#608164)	Organization: Friends of the Bruce Freeman Rail Trail Municipal: Henry Hayes, Town Manager, Sudbury; Beth Suedmeyer, Environmental Planner, Sudbury; Janie Dretler, Chair, Sudbury Select Board; Charlie Russo, Sudbury Select Board	Support	Supports continued inclusion of the Bruce Freeman Rail Trail (Phase 2D) in the FFYs 2022-26 TIP, and request that it remains programmed in FFY 2022. The project is a statewide and regional priority, connecting Lowell with the MetroWest region. The Town has put much effort into advancing the design of the project, including a rapid advance between the 25 percent and 75 percent design stages, and is confident that the project will be ready to advertise in FFY 2022.
Rehabilitation of Mount Auburn Street (Watertown) (#607777)	Municipal: Rich Benevento, WorldTech Engineering, on behalf of the Town of Watertown	Support	Supports continued inclusion of the Rehabilitation of Mount Auburn Street in the FFYs 2022-26 TIP. A design public hearing is anticipated in May 2021, and the project would be well suited for programming FFY 2022.
Wellesley Bicycle Infrastructure (Community Connections)	Municipal: Colette Aufranc, Wellesley Select Board	Support	Supports inclusion of the Wellesley Bicycle Infrastructure project in the FFYs 2022-26 TIP. The project will provide bicycle parking and shelters at Wellesley Middle School, which has the highest ridership of schools in the Town. Notes that the demand for bicycle parking has increased during the pandemic.

Table C-1: Public Comments Received during Development of the FFYs 2022–26 TIP (cont., 15)

Project	Name	Support / Oppose / Request / Concern	Comment
Intersection Improvements at Lowell Street (Route 129) and Woburn Street (Wilmington) (#609253)	Municipal: Jeffrey Hull, Wilmington Town Manager; Valerie Gingrich, Director of Planning and Conservation, Town of Wilmington	Support	Supports advancing the Intersection Improvements at Lowell Street and Woburn Street from FFY 2024 to FFY 2023. Requests that the project precede other programmed TIP projects which will result in increased transient traffic, including the Reconstruction of Main Street in Wilmington (FFY 2025) and the New Boston Street Bridge Replacement in Woburn (FFY 2021), stating that increase vehicle volumes cannot be sustained without the proposed improvements in the project area. The project is anticipated to be at 100 percent design by the end of calendar year 2021.
Other Comments			
Reconstruction of Melnea Cass Boulevard (Boston) (#605789)	Boston residents: Yvonne Lalyre, Josiah Seale	Oppose	Expresses opposition to the Reconstruction of Melnea Cass Boulevard as currently designed, including the removal of numerous trees along the corridor. This project is partially funded by the MPO in FFY 2019.
Route 4/225 Reconstruction, Bedford Street at Hartwell Avenue (Lexington)	Legislative: Rep. Michelle Ciccolo Municipal: James Malloy, Town Manager, Lexington	Support	Supports continued consideration of the Reconstruction of the Routes 4 and 225 intersection in Lexington, a project programmed in the MPO's most recent LRTP. The project is currently advancing towards 25 percent design and is anticipated to be ready for construction earlier than FFY 2030, the year in which it's programmed in the LRTP.
Funding cuts for accessibility improvements at the MBTA commuter rail stations in Newton	Newton resident: Lucia Dolan	Oppose	Expresses opposition to funding being cut for the accessibility improvements at Newton's MBTA commuter rail stations. The proposed ADA improvements and two-sided platforms would allow increased service on this rail line. Connecting Massachusetts' largest cities can reduce transportation inequity and environmental pollution. The continued delay of this important work means that Massachusetts is still not living up to the standards for accessibility set by the Americans with Disabilities Act more than 31 years ago.

SUMMARY OF COMMENTS RECEIVED DURING TIP PUBLIC REVIEW PERIOD

The MPO board voted to release a draft FFYs 2022–26 TIP document for public review at its May 6, 2021, meeting. This vote initiated an official 21-day public review period, which will began on May 10, 2021, and closed on May 31, 2021. The comments received during this public review period will be summarized in Table C-2. Draft responses from the MPO to the commenters will be presented at the June 3, 2021, MPO meeting and will be included in this section when the final version of the document is posted to the MPO's website following a vote for endorsement.

Table C-2: Public Comments Received during the Public Review Period for the Draft FFYs 2022–26 TIP

This table will be included in the final version of the document when it is posted to the MPO's website following a vote for endorsement.


GETY

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, including the distribution of the Boston Region Metropolitan Planning Organization's (MPO) 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.

Tables D-1 and D-2 show the breakdown of the MPO's Regional Target Program funding and all federal highway funding for each municipality in the Boston region. Table D-1 includes funding information by municipality for this TIP (FFYs 2022–26), and Table D-2 shows the same information for an extended time period (FFYs 2011–26). Table D-2 also includes the most recent year of TIP funding for both MPO-prioritized and state-prioritized funds dating back to 2011. Figures D-1 through D-4 summarize this data by subregion, including comparisons between funding levels and the percent of population, jobs, and federal-aid roadway miles.

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. These data were compiled 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 2022–26)

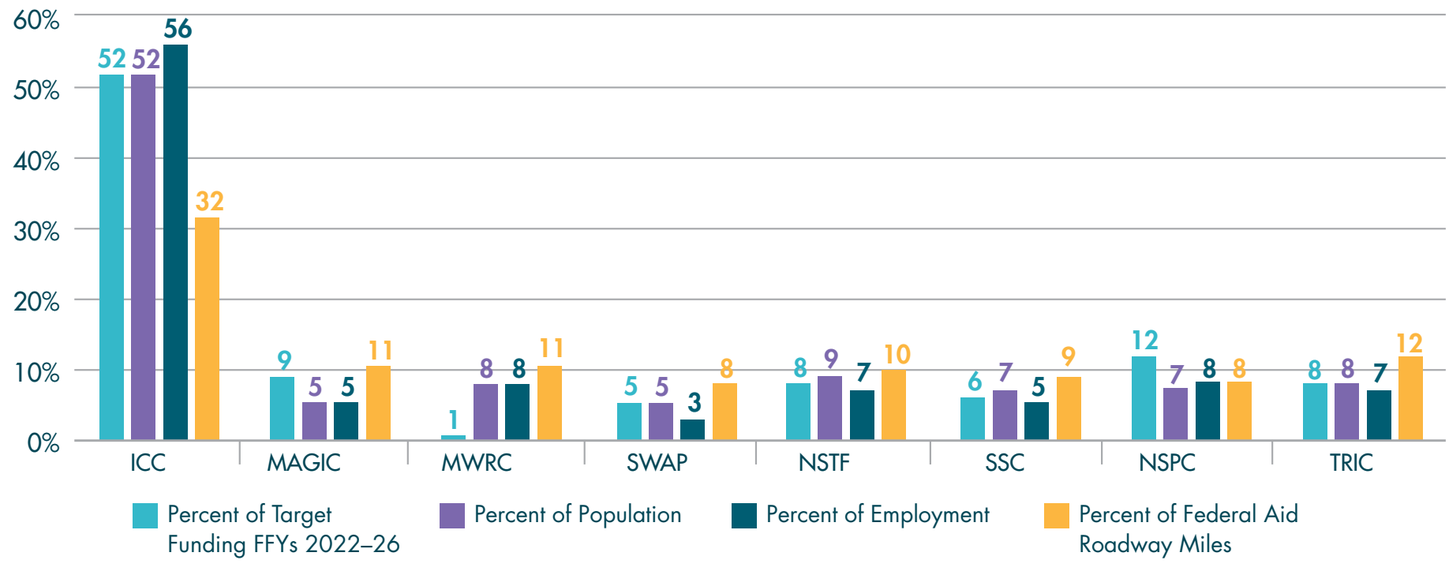

Figure D-2: All Federal Highway Funding in the Boston Region by Subregion (FFYs 2022–26)

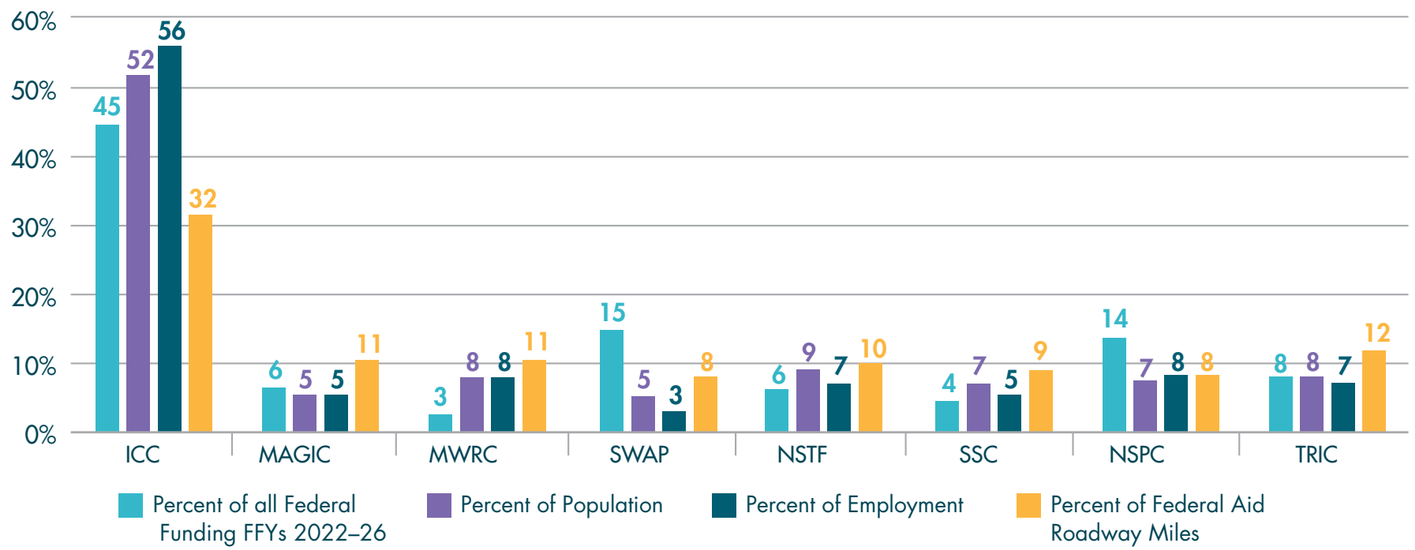

Figure D-3: Distribution of Regional Target Funding by Subregion (FFYs 2011–26)

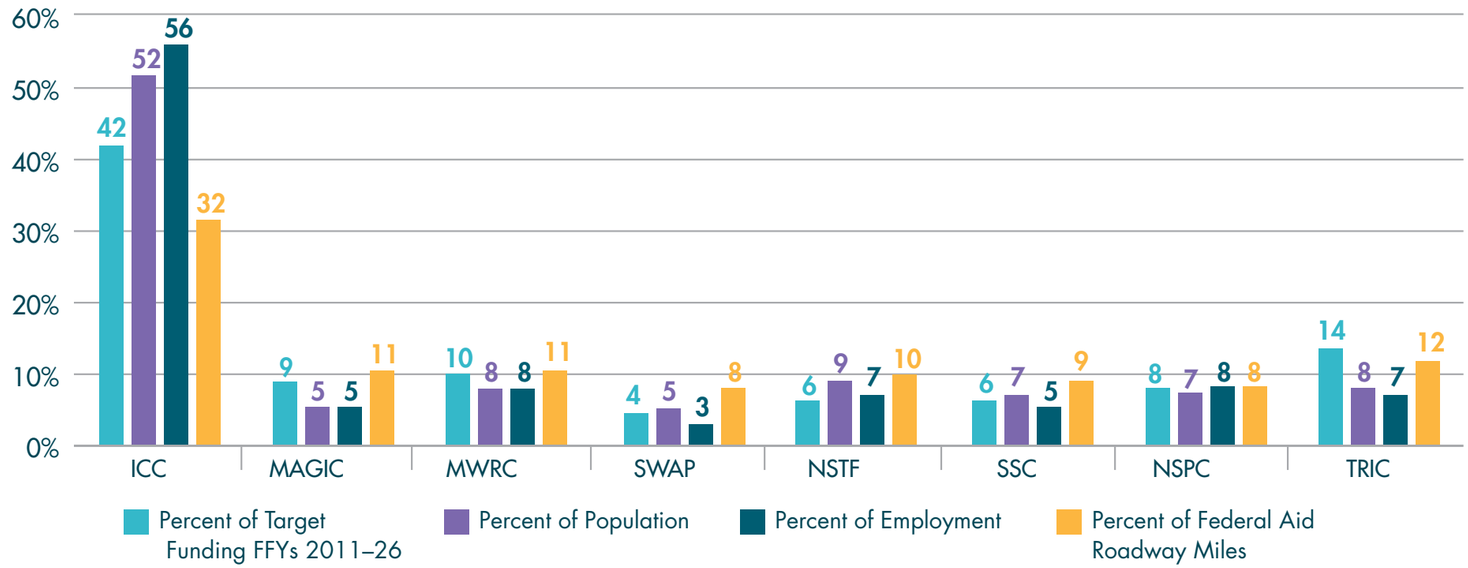

Figure D-4: All Federal Highway Funding in the Boston Region by Subregion (FFYs 2011–26)

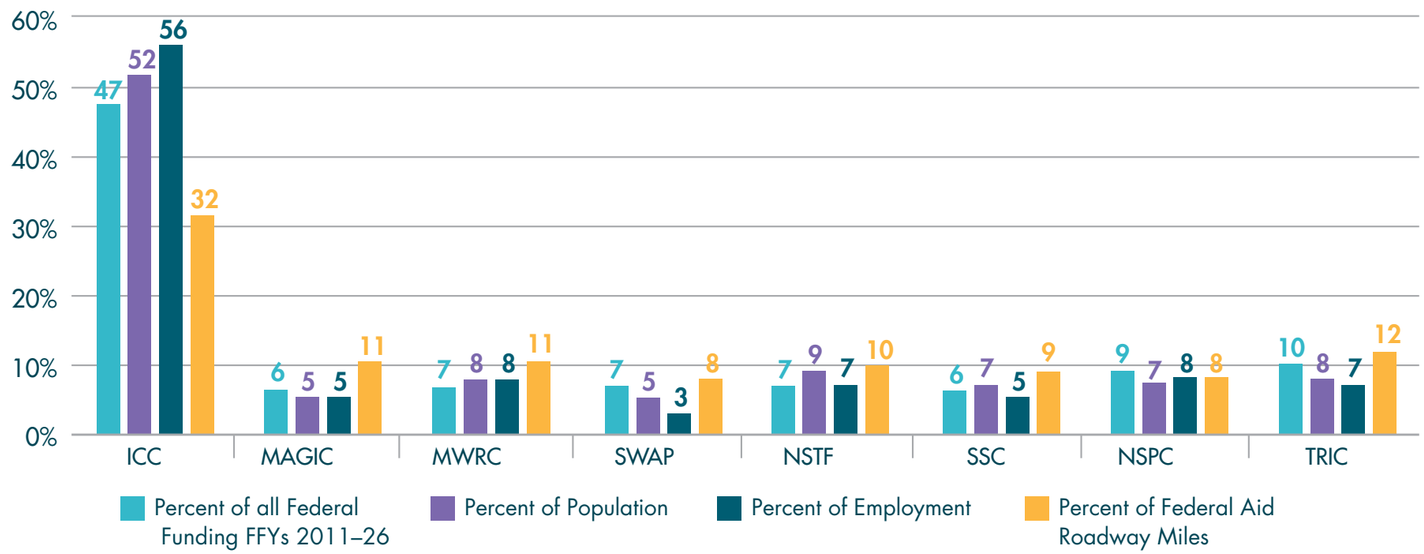

Table D-1: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2022–26)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding
Acton	MAGIC	0.7%	0.5%	1.1%	$15,331,125	3.1%	$6,996,973	1.3%	$22,328,098	2.2%
Arlington	Inner Core	1.4%	0.5%	0.8%	$113,333	0.0%	$1,072,752	0.2%	$1,186,085	0.1%
Ashland	MetroWest	0.5%	0.3%	0.5%	$1,269,327	0.3%	$4,107,096	0.8%	$5,376,423	0.5%
Bedford	MAGIC	0.4%	1.1%	0.8%	$11,000,168	2.2%	$0	0.0%	$11,000,168	1.1%
Bellingham	SWAP	0.5%	0.3%	0.9%	$6,398,158	1.3%	$0	0.0%	$6,398,158	0.6%
Belmont	Inner Core	0.8%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Beverly	NSTF	1.3%	1.2%	1.2%	$7,942,866	1.6%	$271,952	0.1%	$8,214,818	0.8%
Bolton	MAGIC	0.2%	0.1%	0.7%	$0	0.0%	$0	0.0%	$0	0.0%
Boston	Inner Core	20.0%	31.2%	11.1%	$146,183,265	29.3%	$120,886,665	22.8%	$267,069,930	26.0%
Boxborough	MAGIC	0.2%	0.2%	0.4%	$0	0.0%	$2,614,644	0.5%	$2,614,644	0.3%
Braintree	SSC	1.2%	1.5%	1.4%	$0	0.0%	$7,171,811	1.4%	$7,171,811	0.7%
Brookline	Inner Core	1.9%	0.9%	1.3%	$43,620	0.0%	$0	0.0%	$43,620	0.0%
Burlington	NSPC	0.8%	2.2%	1.3%	$6,046,915	1.2%	$5,605,038	1.1%	$11,651,953	1.1%
Cambridge	Inner Core	3.4%	6.0%	1.8%	$292,280	0.1%	$13,921,599	2.6%	$14,213,879	1.4%
Canton	TRIC	0.7%	1.2%	1.1%	$534,820	0.1%	$4,436,543	0.8%	$4,971,363	0.5%
Carlisle	MAGIC	0.2%	0.0%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Chelsea	Inner Core	1.1%	0.8%	0.6%	$11,301,176	2.3%	$6,440,001	1.2%	$17,741,177	1.7%
Cohasset	SSC	0.2%	0.1%	0.5%	$11,691,837	2.3%	$0	0.0%	$11,691,837	1.1%
Concord	MAGIC	0.6%	0.7%	1.1%	$0	0.0%	$1,082,816	0.2%	$1,082,816	0.1%
Danvers	NSTF	0.9%	1.4%	1.5%	$0	0.0%	$3,874,428	0.7%	$3,874,428	0.4%
Dedham	TRIC	0.8%	0.9%	1.1%	$5,157,564	1.0%	$1,681,351	0.3%	$6,838,915	0.7%
Dover	SWAP	0.2%	0.0%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Essex	NSTF	0.1%	0.1%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Everett	Inner Core	1.3%	0.7%	0.6%	$10,657,524	2.1%	$0	0.0%	$10,657,524	1.0%
Foxborough	TRIC	0.5%	0.7%	1.3%	$0	0.0%	$7,169,843	1.4%	$7,169,843	0.7%
Framingham	MetroWest	2.2%	2.5%	2.5%	$2,655,882	0.5%	$7,041,439	1.3%	$9,697,321	0.9%
Franklin	SWAP	1.0%	0.8%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Gloucester	NSTF	0.9%	0.6%	1.0%	$0	0.0%	$0	0.0%	$0	0.0%
Hamilton	NSTF	0.3%	0.1%	0.4%	$0	0.0%	$3,256,397	0.6%	$3,256,397	0.3%
Hingham	SSC	0.7%	0.7%	1.3%	$14,746,200	3.0%	$0	0.0%	$14,746,200	1.4%
Holbrook	SSC	0.3%	0.1%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Holliston	MetroWest	0.4%	0.3%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%

Table D-1: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2022–26) (cont., 2)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding
Hopkinton	SWAP	0.5%	0.5%	1.0%	$0	0.0%	$130,069,416	24.6%	$130,069,416	12.7%
Hudson	MAGIC	0.6%	0.5%	0.7%	$0	0.0%	$0	0.0%	$0	0.0%
Hull	SSC	0.3%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Ipswich	NSTF	0.4%	0.3%	0.7%	$5,702,076	1.1%	$0	0.0%	$5,702,076	0.6%
Lexington	MAGIC	1.0%	1.1%	1.9%	$0	0.0%	$1,082,816	0.2%	$1,082,816	0.1%
Lincoln	MAGIC	0.2%	0.1%	0.6%	$0	0.0%	$1,082,816	0.2%	$1,082,816	0.1%
Littleton	MAGIC	0.3%	0.3%	1.0%	$5,759,352	1.2%	$2,614,644	0.5%	$8,373,996	0.8%
Lynn	Inner Core	2.9%	1.3%	1.3%	$24,628,537	4.9%	$16,155,240	3.1%	$40,783,777	4.0%
Lynnfield	NSPC	0.4%	0.3%	0.6%	$0	0.0%	$5,982,868	1.1%	$5,982,868	0.6%
Malden	Inner Core	1.9%	0.8%	1.0%	$230,915	0.0%	$0	0.0%	$230,915	0.0%
Manchester	NSTF	0.2%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Marblehead	NSTF	0.6%	0.3%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Marlborough	MetroWest	1.2%	1.6%	2.0%	$0	0.0%	$0	0.0%	$0	0.0%
Marshfield	SSC	0.8%	0.3%	1.0%	$0	0.0%	$0	0.0%	$0	0.0%
Maynard	MAGIC	0.3%	0.2%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Medfield	TRIC	0.4%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Medford	Inner Core	1.8%	1.0%	1.5%	$13,676,856	2.7%	$9,106,520	1.7%	$22,783,376	2.2%
Medway	SWAP	0.4%	0.2%	0.6%	$0	0.0%	$1,487,008	0.3%	$1,487,008	0.1%
Melrose	Inner Core	0.9%	0.3%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Middleton	NSTF	0.3%	0.3%	0.5%	$0	0.0%	$6,667,883	1.3%	$6,667,883	0.6%
Milford	SWAP	0.9%	0.8%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Millis	SWAP	0.3%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Milton	TRIC	0.9%	0.3%	1.3%	$0	0.0%	$15,206,652	2.9%	$15,206,652	1.5%
Nahant	Inner Core	0.1%	0.0%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Natick	MetroWest	1.1%	1.3%	1.2%	$0	0.0%	$10,757,137	2.0%	$10,757,137	1.0%
Needham	TRIC	0.9%	1.0%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Newton	Inner Core	2.8%	3.0%	2.6%	$540,333	0.1%	$11,449,919	2.2%	$11,990,252	1.2%
Norfolk	SWAP	0.4%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
North Reading	NSPC	0.5%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Norwell	SSC	0.3%	0.5%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%
Norwood	TRIC	0.9%	1.3%	1.0%	$34,028,162	6.8%	$1,818,611	0.3%	$35,846,773	3.5%
Peabody	NSTF	1.7%	1.3%	1.4%	$25,645,824	5.1%	$145,900	0.0%	$25,791,724	2.5%
Quincy	Inner Core	3.0%	2.6%	2.1%	$5,843,442	1.2%	$10,865,937	2.1%	$16,709,379	1.6%
Randolph	TRIC	1.0%	0.5%	1.0%	$0	0.0%	$10,416,142	2.0%	$10,416,142	1.0%
Reading	NSPC	0.8%	0.4%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%

Table D-1: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2022–26) (cont., 3)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding
Revere	Inner Core	1.7%	0.5%	1.3%	$0	0.0%	$350,914	0.1%	$350,914	0.0%
Rockland	SSC	0.6%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Rockport	NSTF	0.2%	0.1%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Salem	NSTF	1.3%	1.1%	0.7%	$0	0.0%	$3,354,720	0.6%	$3,354,720	0.3%
Saugus	Inner Core	0.9%	0.6%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%
Scituate	SSC	0.6%	0.2%	1.0%	$1,299,093	0.3%	$0	0.0%	$1,299,093	0.1%
Sharon	TRIC	0.6%	0.2%	1.1%	$0	0.0%	$137,260	0.0%	$137,260	0.0%
Sherborn	SWAP	0.1%	0.0%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Somerville	Inner Core	2.5%	1.2%	1.2%	$13,558,441	2.7%	$6,122,559	1.2%	$19,681,000	1.9%
Southborough	MetroWest	0.3%	0.4%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Stoneham	NSPC	0.7%	0.4%	0.8%	$0	0.0%	$15,252,858	2.9%	$15,252,858	1.5%
Stow	MAGIC	0.2%	0.1%	0.6%	$0	0.0%	$3,592,584	0.7%	$3,592,584	0.3%
Sudbury	MAGIC	0.6%	0.5%	1.0%	$12,886,676	2.6%	$0	0.0%	$12,886,676	1.3%
Swampscott	NSTF	0.4%	0.2%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Topsfield	NSTF	0.2%	0.1%	0.6%	$0	0.0%	$3,374,841	0.6%	$3,374,841	0.3%
Wakefield	NSPC	0.8%	0.8%	0.9%	$0	0.0%	$5,836,968	1.1%	$5,836,968	0.6%
Walpole	TRIC	0.8%	0.6%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Waltham	Inner Core	2.0%	3.0%	1.6%	$0	0.0%	$0	0.0%	$0	0.0%
Watertown	Inner Core	1.0%	1.1%	0.6%	$28,453,423	5.7%	$0	0.0%	$28,453,423	2.8%
Wayland	MetroWest	0.4%	0.2%	0.7%	$0	0.0%	$0	0.0%	$0	0.0%
Wellesley	MetroWest	0.9%	0.9%	0.9%	$85,054	0.0%	$0	0.0%	$85,054	0.0%
Wenham	NSTF	0.2%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Weston	MetroWest	0.4%	0.2%	1.3%	$0	0.0%	$2,763,888	0.5%	$2,763,888	0.3%
Westwood	TRIC	0.5%	0.5%	0.7%	$0	0.0%	$1,114,286	0.2%	$1,114,286	0.1%
Weymouth	SSC	1.7%	1.0%	1.5%	$0	0.0%	$7,171,811	1.4%	$7,171,811	0.7%
Wilmington	NSPC	0.7%	1.0%	1.3%	$30,174,946	6.1%	$34,356,868	6.5%	$64,531,814	6.3%
Winchester	NSPC	0.7%	0.5%	0.6%	$0	0.0%	$8,047,857	1.5%	$8,047,857	0.8%
Winthrop	Inner Core	0.6%	0.1%	0.3%	$5,931,953	1.2%	$0	0.0%	$5,931,953	0.6%
Woburn	NSPC	1.2%	2.2%	1.5%	$22,152,515	4.4%	$5,605,038	1.1%	$27,757,553	2.7%
Wrentham	SWAP	0.4%	0.3%	1.0%	$16,187,418	3.2%	$0	0.0%	$16,187,418	1.6%

Table D-2: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2011–26)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding	FFY of Most Recent Target Funding*	FFY of Most Recent State Funding*
Acton	MAGIC	0.7%	0.5%	1.1%	$15,475,012	1.1%	$21,487,630	1.3%	$36,962,642	1.2%	2022	2026
Arlington	Inner Core	1.4%	0.5%	0.8%	$5,239,052	0.4%	$11,971,609	0.7%	$17,210,661	0.6%	2022	2024
Ashland	MetroWest	0.5%	0.3%	0.5%	$20,858,881	1.5%	$4,107,096	0.3%	$24,965,977	0.8%	2024	2026
Bedford	MAGIC	0.4%	1.1%	0.8%	$25,148,342	1.8%	$0	0.0%	$25,148,342	0.8%	2022	None
Bellingham	SWAP	0.5%	0.3%	0.9%	$6,398,158	0.5%	$10,839,965	0.7%	$17,238,123	0.6%	2022	2014
Belmont	Inner Core	0.8%	0.4%	0.6%	$15,495,738	1.1%	$10,727,859	0.7%	$26,223,597	0.9%	2012	2021
Beverly	NSTF	1.3%	1.2%	1.2%	$34,320,464	2.5%	$271,952	0.0%	$34,592,416	1.2%	2023	2024
Bolton	MAGIC	0.2%	0.1%	0.7%	$0	0.0%	$533,333	0.0%	$533,333	0.0%	None	2013
Boston	Inner Core	20.0%	31.2%	11.1%	$198,555,759	14.5%	$341,315,690	21.1%	$539,871,449	18.0%	2026	2026
Boxborough	MAGIC	0.2%	0.2%	0.4%	$0	0.0%	$4,669,868	0.3%	$4,669,868	0.2%	None	2025
Braintree	SSC	1.2%	1.5%	1.4%	$0	0.0%	$35,625,282	2.2%	$35,625,282	1.2%	None	2026
Brookline	Inner Core	1.9%	0.9%	1.3%	$6,930,526	0.5%	$3,690,510	0.2%	$10,621,036	0.4%	2022	2019
Burlington	NSPC	0.8%	2.2%	1.3%	$20,610,089	1.5%	$5,605,038	0.3%	$26,215,127	0.9%	2026	2024
Cambridge	Inner Core	3.4%	6.0%	1.8%	$44,638,033	3.2%	$20,325,030	1.3%	$64,963,063	2.2%	2022	2025
Canton	TRIC	0.7%	1.2%	1.1%	$2,534,820	0.2%	$8,924,896	0.6%	$11,459,716	0.4%	2024	2024
Carlisle	MAGIC	0.2%	0.0%	0.4%	$0	0.0%	$3,696,000	0.2%	$3,696,000	0.1%	None	2014
Chelsea	Inner Core	1.1%	0.8%	0.6%	$11,301,176	0.8%	$224,847,992	13.9%	$236,149,168	7.9%	2022	2025
Cohasset	SSC	0.2%	0.1%	0.5%	$11,691,837	0.9%	$4,336,600	0.3%	$16,028,437	0.5%	2024	2016
Concord	MAGIC	0.6%	0.7%	1.1%	$22,592,311	1.6%	$14,195,453	0.9%	$36,787,763	1.2%	2021	2022
Danvers	NSTF	0.9%	1.4%	1.5%	$8,836,648	0.6%	$35,918,341	2.2%	$44,754,989	1.5%	2013	2024
Dedham	TRIC	0.8%	0.9%	1.1%	$14,932,981	1.1%	$11,143,280	0.7%	$26,076,260	0.9%	2023	2023
Dover	SWAP	0.2%	0.0%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Essex	NSTF	0.1%	0.1%	0.2%	$0	0.0%	$10,659,471	0.7%	$10,659,471	0.4%	2008	2021
Everett	Inner Core	1.3%	0.7%	0.6%	$39,792,222	2.9%	$0	0.0%	$39,792,222	1.3%	2025	None
Foxborough	TRIC	0.5%	0.7%	1.3%	$0	0.0%	$19,199,843	1.2%	$19,199,843	0.6%	2009	2023
Framingham	MetroWest	2.2%	2.5%	2.5%	$13,847,308	1.0%	$10,341,682	0.6%	$24,188,990	0.8%	2023	2026
Franklin	SWAP	1.0%	0.8%	1.2%	$0	0.0%	$13,462,467	0.8%	$13,462,467	0.4%	2009	2015
Gloucester	NSTF	0.9%	0.6%	1.0%	$0	0.0%	$15,478,733	1.0%	$15,478,733	0.5%	None	2021
Hamilton	NSTF	0.3%	0.1%	0.4%	$0	0.0%	$3,256,397	0.2%	$3,256,397	0.1%	None	2024

Table D-2: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2011–26) (cont., 2)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding	FFY of Most Recent Target Funding*	FFY of Most Recent State Funding*
Hingham	SSC	0.7%	0.7%	1.3%	$23,716,707	1.7%	$6,355,441	0.4%	$30,072,148	1.0%	2025	2018
Holbrook	SSC	0.3%	0.1%	0.3%	$3,036,628	0.2%	$1,527,250	0.1%	$4,563,878	0.2%	2021	2021
Holliston	MetroWest	0.4%	0.3%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Hopkinton	SWAP	0.5%	0.5%	1.0%	$11,346,584	0.8%	$136,335,602	8.4%	$147,682,186	4.9%	2020	2026
Hudson	MAGIC	0.6%	0.5%	0.7%	$11,114,480	0.8%	$533,333	0.0%	$11,647,813	0.4%	2011	2013
Hull	SSC	0.3%	0.1%	0.4%	$8,223,422	0.6%	$0	0.0%	$8,223,422	0.3%	2021	None
Ipswich	NSTF	0.4%	0.3%	0.7%	$6,778,311	0.5%	$0	0.0%	$6,778,311	0.2%	2024	None
Lexington	MAGIC	1.0%	1.1%	1.9%	$5,200,000	0.4%	$3,752,066	0.2%	$8,952,066	0.3%	2016	2022
Lincoln	MAGIC	0.2%	0.1%	0.6%	$22,492,311	1.6%	$1,189,066	0.1%	$23,681,377	0.8%	2014	2022
Littleton	MAGIC	0.3%	0.3%	1.0%	$5,759,352	0.4%	$4,669,868	0.3%	$10,429,220	0.3%	2024	2025
Lynn	Inner Core	2.9%	1.3%	1.3%	$30,159,817	2.2%	$44,390,731	2.7%	$74,550,548	2.5%	2024	2024
Lynnfield	NSPC	0.4%	0.3%	0.6%	$0	0.0%	$19,355,706	1.2%	$19,355,706	0.6%	None	2026
Malden	Inner Core	1.9%	0.8%	1.0%	$2,224,632	0.2%	$7,579,662	0.5%	$9,804,294	0.3%	2022	2019
Manchester	NSTF	0.2%	0.1%	0.4%	$0	0.0%	$5,589,309	0.3%	$5,589,309	0.2%	None	2021
Marblehead	NSTF	0.6%	0.3%	0.5%	$622,284	0.0%	$0	0.0%	$622,284	0.0%	2021	None
Marlborough	MetroWest	1.2%	1.6%	2.0%	$5,613,636	0.4%	$12,277,661	0.8%	$17,891,297	0.6%	2017	2021
Marshfield	SSC	0.8%	0.3%	1.0%	$5,682,660	0.4%	$6,502,559	0.4%	$12,185,219	0.4%	2011	2018
Maynard	MAGIC	0.3%	0.2%	0.3%	$0	0.0%	$6,586,106	0.4%	$6,586,106	0.2%	None	2021
Medfield	TRIC	0.4%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Medford	Inner Core	1.8%	1.0%	1.5%	$55,337,928	4.0%	$15,376,510	1.0%	$70,714,438	2.4%	2022	2025
Medway	SWAP	0.4%	0.2%	0.6%	$12,062,567	0.9%	$1,487,008	0.1%	$13,549,575	0.5%	2015	2023
Melrose	Inner Core	0.9%	0.3%	0.4%	$4,405,030	0.3%	$629,930	0.0%	$5,034,960	0.2%	2014	2014
Middleton	NSTF	0.3%	0.3%	0.5%	$0	0.0%	$8,437,859	0.5%	$8,437,859	0.3%	None	2024
Milford	SWAP	0.9%	0.8%	1.2%	$6,467,944	0.5%	$7,552,000	0.5%	$14,019,944	0.5%	2019	2012
Millis	SWAP	0.3%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Milton	TRIC	0.9%	0.3%	1.3%	$0	0.0%	$24,403,134	1.5%	$24,403,134	0.8%	None	2023
Nahant	Inner Core	0.1%	0.0%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Natick	MetroWest	1.1%	1.3%	1.2%	$22,799,769	1.7%	$21,624,031	1.3%	$44,423,800	1.5%	2019	2026
Needham	TRIC	0.9%	1.0%	1.2%	$100,365,195	7.3%	$0	0.0%	$100,365,195	3.4%	2020	None

Table D-2: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2011–26) (cont., 3)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding	FFY of Most Recent Target Funding*	FFY of Most Recent State Funding*
Newton	Inner Core	2.8%	3.0%	2.6%	$18,164,298	1.3%	$16,875,021	1.0%	$35,039,318	1.2%	2023	2025
Norfolk	SWAP	0.4%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%	2009	None
North Reading	NSPC	0.5%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Norwell	SSC	0.3%	0.5%	0.8%	$0	0.0%	$18,691,376	1.2%	$18,691,376	0.6%	None	2018
Norwood	TRIC	0.9%	1.3%	1.0%	$34,028,162	2.5%	$5,397,980	0.3%	$39,426,142	1.3%	2026	2023
Peabody	NSTF	1.7%	1.3%	1.4%	$25,645,824	1.9%	$17,595,688	1.1%	$43,241,512	1.4%	2025	2022
Quincy	Inner Core	3.0%	2.6%	2.1%	$9,418,720	0.7%	$33,406,045	2.1%	$42,824,765	1.4%	2023	2023
Randolph	TRIC	1.0%	0.5%	1.0%	$2,000,000	0.1%	$17,061,109	1.1%	$19,061,109	0.6%	2011	2024
Reading	NSPC	0.8%	0.4%	0.8%	$10,093,721	0.7%	$14,719,703	0.9%	$24,813,424	0.8%	2021	2020
Revere	Inner Core	1.7%	0.5%	1.3%	$0	0.0%	$6,520,107	0.4%	$6,520,107	0.2%	None	2025
Rockland	SSC	0.6%	0.4%	0.6%	$0	0.0%	$2,312,703	0.1%	$2,312,703	0.1%	2010	2018
Rockport	NSTF	0.2%	0.1%	0.2%	$0	0.0%	$775,913	0.0%	$775,913	0.0%	None	2011
Salem	NSTF	1.3%	1.1%	0.7%	$10,610,340	0.8%	$8,806,158	0.5%	$19,416,498	0.6%	2018	2026
Saugus	Inner Core	0.9%	0.6%	0.8%	$0	0.0%	$41,317,699	2.6%	$41,317,699	1.4%	None	2021
Scituate	SSC	0.6%	0.2%	1.0%	$1,299,093	0.1%	$515,000	0.0%	$1,814,093	0.1%	2024	2011
Sharon	TRIC	0.6%	0.2%	1.1%	$42,000	0.0%	$13,361,018	0.8%	$13,403,018	0.4%	2021	2022
Sherborn	SWAP	0.1%	0.0%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%	None	None
Somerville	Inner Core	2.5%	1.2%	1.2%	$107,027,125	7.8%	$48,787,802	3.0%	$155,814,927	5.2%	2022	2023
Southborough	MetroWest	0.3%	0.4%	1.2%	$7,294,520	0.5%	$533,333	0.0%	$7,827,853	0.3%	2018	2013
Stoneham	NSPC	0.7%	0.4%	0.8%	$1,809,703	0.1%	$22,148,684	1.4%	$23,958,388	0.8%	2016	2026
Stow	MAGIC	0.2%	0.1%	0.6%	$0	0.0%	$10,299,140	0.6%	$10,299,140	0.3%	None	2023
Sudbury	MAGIC	0.6%	0.5%	1.0%	$12,886,676	0.9%	$1,974,736	0.1%	$14,861,412	0.5%	2022	2019
Swampscott	NSTF	0.4%	0.2%	0.3%	$0	0.0%	$1,762,074	0.1%	$1,762,074	0.1%	None	2021
Topsfield	NSTF	0.2%	0.1%	0.6%	$0	0.0%	$6,183,406	0.4%	$6,183,406	0.2%	2008	2026
Wakefield	NSPC	0.8%	0.8%	0.9%	$0	0.0%	$19,142,234	1.2%	$19,142,234	0.6%	2008	2026
Walpole	TRIC	0.8%	0.6%	1.2%	$25,653,571	1.9%	$9,175,135	0.6%	$34,828,706	1.2%	2020	2020
Waltham	Inner Core	2.0%	3.0%	1.6%	$0	0.0%	$3,887,210	0.2%	$3,887,210	0.1%	None	2018
Watertown	Inner Core	1.0%	1.1%	0.6%	$28,453,423	2.1%	$0	0.0%	$28,453,423	1.0%	2024	None
Wayland	MetroWest	0.4%	0.2%	0.7%	$0	0.0%	$7,189,482	0.4%	$7,189,482	0.2%	None	2016

Table D-2: Federal Highway Programming for Municipalities in the Boston Region (FFYs 2011–26) (cont., 4)

MPO Municipality	MPO Subregion	Percent of Regional Population (2010)	Percent of Regional Employment (2010)	Percent of Regional Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding	Percent of Regionally Prioritized Target Funding	State-Prioritized Federal Funding	Percent of State-Prioritized Federal Funding	Total Regionally and State-Prioritized Funding	Percent of Total Regionally and State-Prioritized Funding	FFY of Most Recent Target Funding*	FFY of Most Recent State Funding*
Wellesley	MetroWest	0.9%	0.9%	0.9%	$73,350,868	5.3%	$3,117,102	0.2%	$76,467,970	2.6%	2022	2018
Wenham	NSTF	0.2%	0.1%	0.4%	$0	0.0%	$4,964,309	0.3%	$4,964,309	0.2%	None	2021
Weston	MetroWest	0.4%	0.2%	1.3%	$0	0.0%	$8,490,504	0.5%	$8,490,504	0.3%	None	2022
Westwood	TRIC	0.5%	0.5%	0.7%	$11,775,417	0.9%	$1,114,286	0.1%	$12,889,702	0.4%	2012	2023
Weymouth	SSC	1.7%	1.0%	1.5%	$25,040,879	1.8%	$11,244,536	0.7%	$36,285,415	1.2%	2018	2026
Wilmington	NSPC	0.7%	1.0%	1.3%	$30,174,946	2.2%	$43,702,041	2.7%	$73,876,987	2.5%	2026	2025
Winchester	NSPC	0.7%	0.5%	0.6%	$1,809,703	0.1%	$15,846,872	1.0%	$17,656,576	0.6%	2016	2025
Winthrop	Inner Core	0.6%	0.1%	0.3%	$5,931,953	0.4%	$1,768,974	0.1%	$7,700,927	0.3%	2023	2016
Woburn	NSPC	1.2%	2.2%	1.5%	$52,229,441	3.8%	$16,813,958	1.0%	$69,043,399	2.3%	2026	2024
Wrentham	SWAP	0.4%	0.3%	1.0%	$16,187,418	1.2%	$0	0.0%	$16,187,418	0.5%	2024	None

*Only includes TIP programming dating back to FFY 2011.


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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) 2022.

Federal Regulations and Guidance

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 storm water impacts of surface transportation
10. Enhance travel and tourism

The Boston Region MPO has also incorporated these federal planning factors into its vision, goals, and objectives.

FAST Act: Performance-based Planning and Programming

The United States Department of Transportation (USDOT), in consultation with states, MPOs, and other stakeholders, has established performance measures relevant to these national goals. 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 4 for more information about these federally required performance measures, the MPO's performance targets, and how these measures and targets relate to the projects programmed in this TIP.

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 MPO region were established in Title 40, parts 51 and 53, of the Code of Federal Regulations.

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, a CO 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 analysis for these communities. As of April 1, 2016, however, the 20-year maintenance period for this CO maintenance area expired and transportation conformity is no longer required for this pollutant in these communities. This ruling is documented in a letter from the EPA dated May 12, 2016.

On April 22, 2002, the City of Waltham was redesignated 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.

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 (TCMs) 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 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 (see below). See Chapter 5 for more information on conformity and greenhouse gas reporting.

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 programs 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 analyzes the likely benefits and adverse effects of transportation projects to equity populations (populations traditionally underserved by the transportation system, as identified in the MPO's Transportation Equity program) when deciding which projects to fund. This analysis is conducted through the MPO's project selection criteria, which were recently strengthened to prioritize projects that provide benefits to these populations. 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. (See Chapter 6 for this analysis.) 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 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. Additionally, 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 greenhouse gas (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.

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 these 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 greenhouse gas 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

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 2018 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.

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 also 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. The MPO seeks to support the goals of MassDOT's modal plans when making funding decisions in the TIP through its investment programs, specifically through its Bicycle Network and Pedestrian Connections program and its Transit Modernization program.

Global Warming Solutions Act

The Global Warming Solutions Act (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, 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

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 Appendix A for more information about the MPO's project selection criteria and Appendix B for more details about the MPO's GHG monitoring and evaluation activities.

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 LRTP, *Destination 2040*, the Boston Region MPO has continued to utilize investment programs—particularly its Complete Streets and Bicycle Network and Pedestrian Connections programs—that support the implementation of Complete Streets projects. In the Unified Planning Work Program (UPWP), 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 National Highway System (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 (PMT), 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 RailVision plan, which will inform the vision for the future of the MBTA's commuter rail system; the Better Bus Project, the plan to redesign 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.

MetroFuture

MetroFuture, which was developed by the Metropolitan Area Planning Council (MAPC) and adopted in 2008, is the long-range plan for land use, housing, economic development, and environmental preservation in the Boston region. It includes a vision for the region's future and a set of strategies for achieving that vision, and it serves as the foundation for land-use projections used in the MPO's LRTP, *Destination 2040*.

MAPC is now developing MetroCommon, the next regional plan, which will build off of MetroFuture and include an updated set of strategies for achieving sustainable growth and equitable prosperity. The MPO will continue to consider MetroFuture's goals, objectives, and strategies in its planning and activities, and monitor MetroCommon as it develops.

The Boston Region MPO's Congestion Management Process

The purpose of the Congestion Management Process (CMP) is to monitor and analyze performance of 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 and park-and-ride facilities in the Boston region for safety, congestion, and mobility, and identifies problem locations. The CMP is described in more detail in the UPWP. Studies undertaken through the CMP are often the inspiration for discrete studies funded through the UPWP. Needs identified through the MPO's CMP can also be addressed by projects funded in the TIP.

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 impacts. 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 impacts become apparent, state and regional partners' guidance and priorities are likely to be adjusted.


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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, comprised of 11 members appointed by the governor, oversees all four divisions and MassDOT operations and works closely with the Fiscal and Management Control Board of the Massachusetts Bay Transportation Authority. The MassDOT Board of Directors was expanded to 11 members by the legislature in 2015 based on a recommendation by Governor Baker's Special Panel, 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 **Massachusetts Bay Transportation Authority (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, 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. As of this writing, the FMCB's mandate has not been extended further.

The FMCB's goals target governance, finance, and agency structure and operations through recommended executive and legislative actions that embrace transparency and develop stability in order to earn public trust. By statute, the FMCB consists of five members, one with experience in transportation finance, one with experience in mass transit operations, and three who are also members of the MassDOT Board of Directors.

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, 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 Woburn**), and six elected towns (currently **Acton, Arlington, Brookline, Medway, Norwood, and Rockland**) 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 Fixing America's Surface Transportation (FAST) Act.

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 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 2022–26 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).

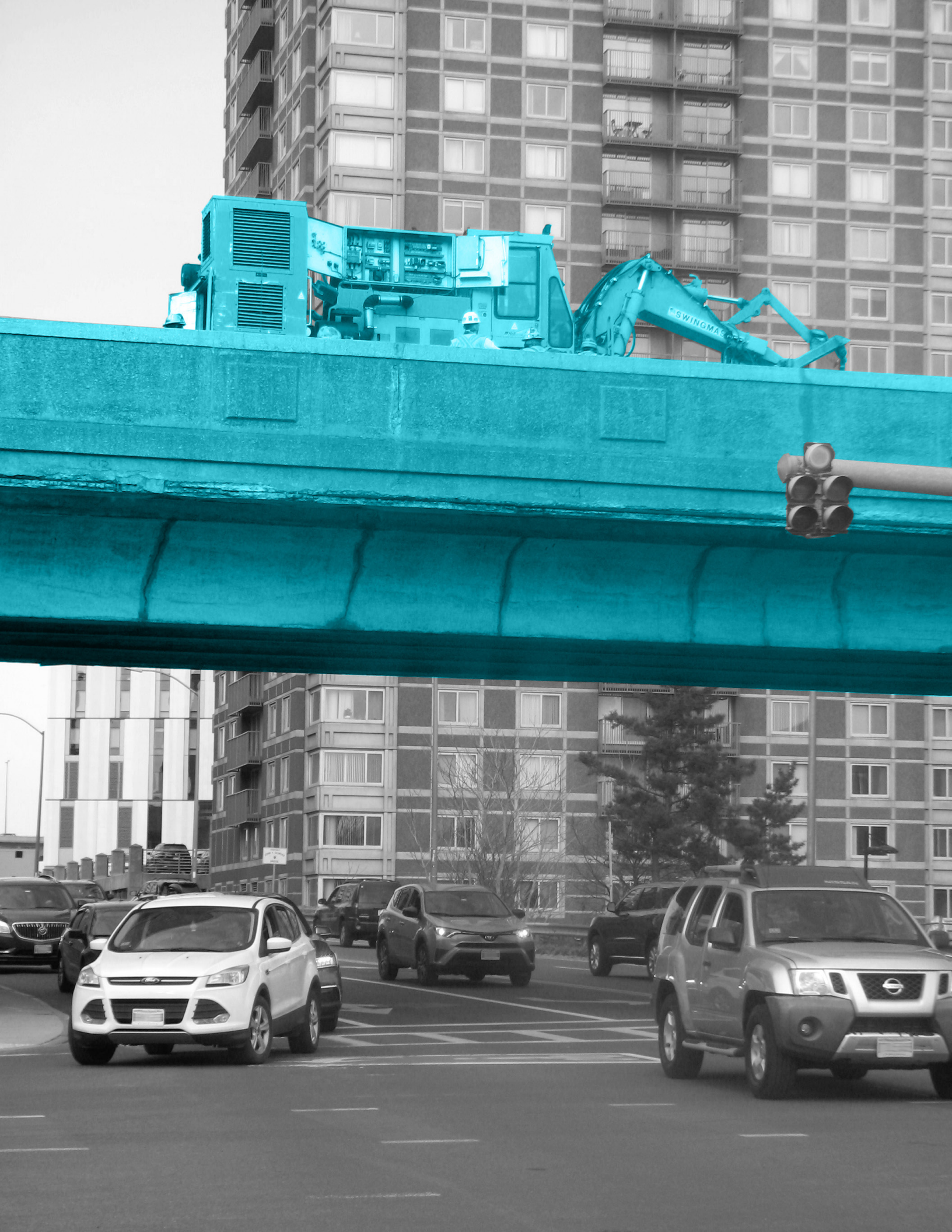

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT

Operating and Maintenance Expenditures as of April 2021

Statewide and District Contracts plus Expenditures within MPO boundaries

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 1: Non-Federal Aid					
Section I - Non Federal Aid Maintenance Projects - State Bondfunds					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ 374,915	$ 77,526	$ 115,304	$ 38,435	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 50,530,642	$ 38,042,142	$ 17,926,495	$ 2,636,969	$ -
Bridge Maintenance - Deck Repairs	$ 8,768,432	$ 6,573,425	$ 3,751,868	$ 1,656,076	$ 155,826
Bridge Maintenance - Joints	$ 1,155,000	$ 2,287,026	$ 1,516,850	$ 460,985	$ 71,388
Bridge Preservation	$ 4,252,063	$ 4,518,597	$ 1,646,318	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ 175,570	$ 526,709	$ 526,709	$ 43,892
Drawbridge Maintenance	$ 7,557,601	$ 6,380,659	$ 2,434,718	$ -	$ -
Painting - Structural	$ 6,641,700	$ 5,373,228	$ 542,013	$ -	$ -
Structures Maintenance	$ 1,828,780	$ 225,000	$ 130,601	$ -	$ -
04 - Capacity					
Hwy Reconstr - Added Capacity	$ -	$ -	$ -	$ -	$ -
05 - Facilities					
Vertical Construction (Ch 149)	$ 10,306,212	$ 3,605,059	$ 2,272,733	$ 695,293	$ -
07 - Intersection Improvements					
Traffic Signals	$ 3,023,006	$ 2,194,146	$ 444,178	$ 144,000	$ -
08 - Interstate Pavement					
Resurfacing Interstate	$ -	$ -	$ -	$ -	$ -
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$ -	$ -	$ -	$ -	$ -
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$ -	$ 489,886	$ 839,805	$ 209,951	$ -
Resurfacing	$ 10,466,353	$ 4,796,360	$ 3,271,364	$ 696,316	$ -
Resurfacing DOT Owned Non-Interstate	$ 8,495,515	$ 3,639,973	$ 1,657,155	$ -	$ -
11 - Roadway Improvements					
Asbestos Removal	$ -	$ 1,246,592	$ -	$ -	$ -
Catch Basin Cleaning	$ 1,786,357	$ 1,529,801	$ 1,350,344	$ 285,946	$ -
Contract Highway Maintenance	$ 4,636,076	$ 2,012,347	$ 634,879	$ 69,639	$ -
Crack Sealing	$ 2,415,593	$ 1,371,677	$ 425,506	$ -	$ -
Culvert Maintenance	$ 496,297	$ 588,151	$ -	$ -	$ -
Culvert Reconstruction/Rehab	$ 444,173	$ -	$ -	$ -	$ -
Drainage	$ 8,178,326	$ 5,030,169	$ 3,473,204	$ 524,839	$ -
Guard Rail & Fencing	$ 6,443,072	$ 2,462,423	$ 1,440,851	$ 425,823	$ -
Highway Sweeping	$ 973,750	$ 1,128,020	$ 1,224,735	$ 160,245	$ -
Landscaping	$ 799,028	$ -	$ -	$ -	$ -
Mowing and Spraying	$ 2,705,380	$ 2,790,093	$ 1,240,827	$ 126,229	$ -
Sewer and Water	$ 11,200	$ 583	$ 1,100	$ 733	$ -
Tree Trimming	$ 3,834,965	$ 3,443,210	$ 2,634,418	$ 449,600	$ -
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$ 2,402,766	$ 558,020	$ 222,630	$ -	$ -
13 - Safety Improvements					
Electrical	$ 1,026,290	$ 262,366	$ -	$ -	$ -
Impact Attenuators	$ 823,156	$ 870,993	$ 1,086,817	$ 634,834	$ 254,897
Lighting	$ 2,163,221	$ 1,881,231	$ 421,297	$ 81,000	$ -
Pavement Marking	$ 3,757,747	$ 3,227,399	$ 983,304	$ 194,783	$ -
Safety Improvements	$ 619,617	$ 225,000	$ 33,595	$ -	$ -
Sign Installation/Upgrading	$ 249,246	$ 361,674	$ 498,880	$ 227,526	$ -
Structural Signing	$ 773,069	$ 237,152	$ 119,607	$ -	$ -
Section I Total:	**$ 157,939,547**	**$ 107,605,498**	**$ 52,868,105**	**$ 10,245,930**	**$ 526,003**
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding					
Snow and Ice Operations & Materials					
	$ 73,700,000	$ 45,000,000	$ 45,000,000	$ 45,000,000	$ 45,000,000
District Maintenance Payroll					
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	$ 33,575,810	$ 34,583,084	$ 35,620,577	$ 36,689,194	$ 37,789,870
Section II Total:	**$ 107,275,810**	**$ 79,583,084**	**$ 80,620,577**	**$ 81,689,194**	**$ 82,789,870**
Grand Total NFA:	**$ 265,215,357**	**$ 187,188,583**	**$ 133,488,682**	**$ 91,935,124**	**$ 83,315,873**

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT (cont., 2)

Operating and Maintenance Expenditures as of April 2021

Statewide and District Contracts plus Expenditures within MPO boundaries

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 2: Federal Aid					
Section I - Federal Aid Maintenance Projects					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ 25,063	$ -	$ -	$ -	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 1,278,445	$ 3,428,044	$ 770,671	$ 2,357,142	$ -
Bridge Maintenance - Deck Repairs	$ -	$ -	$ -	$ 265,653	$ 243,515
Bridge Maintenance - Joints	$ -	$ -	$ -	$ -	$ -
Bridge Preservation	$ -	$ -	$ -	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ -	$ -	$ -	$ -
Drawbridge Maintenance	$ -	$ -	$ -	$ -	$ -
Painting - Structural	$ 2,337,724	$ 2,748,097	$ 276,981	$ -	$ -
Structures Maintenance	$ 374,553	$ -	$ -	$ -	$ -
04 - Capacity					
Hwy Reconstr - Added Capacity	$ -	$ -	$ -	$ -	$ -
05 - Facilities					
Vertical Construction (Ch 149)	$ -	$ -	$ -	$ -	$ -
07 - Intersection Improvements					
Traffic Signals	$ 5,391	$ -	$ -	$ -	$ -
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	$ 102,976	$ -	$ -	$ -	$ -
Guard Rail & Fencing	$ -	$ -	$ -	$ -	$ -
Highway Sweeping	$ -	$ -	$ -	$ -	$ -
Landscaping	$ -	$ -	$ -	$ -	$ -
Mowing and Spraying	$ -	$ -	$ -	$ -	$ -
Sewer and Water	$ -	$ -	$ -	$ -	$ -
Tree Trimming	$ -	$ -	$ -	$ -	$ -
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$ 463	$ -	$ -	$ -	$ -
13 - Safety Improvements					
Electrical	$ -	$ -	$ -	$ -	$ -
Impact Attenuators	$ -	$ -	$ -	$ -	$ -
Lighting	$ 6,701,881	$ 5,667,317	$ 1,142,516	$ 10,155	$ -
Pavement Marking	$ -	$ -	$ -	$ -	$ -
Safety Improvements	$ -	$ -	$ -	$ -	$ -
Sign Installation/Upgrading	$ 795,825	$ -	$ -	$ -	$ -
Structural Signing	$ 858,527	$ 180,823	$ -	$ -	$ -
Section I Total:	**$ 12,480,848**	**$ 12,024,280**	**$ 2,190,167**	**$ 2,632,950**	**$ 243,515**
Grand Total Federal Aid:	**$ 12,480,848**	**$ 12,024,280**	**$ 2,190,167**	**$ 2,632,950**	**$ 243,515**

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT (cont., 3)

Operating and Maintenance Expenditures as of April 2021

Statewide and District Contracts

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 1: Non-Federal Aid					
Section I - Non Federal Aid Maintenance Projects - State Bondfunds					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ 374,915	$ 77,526	$ 115,304	$ 38,435	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 43,428,981	$ 26,794,121	$ 16,077,531	$ 2,636,969	$ -
Bridge Maintenance - Deck Repairs	$ 8,768,432	$ 6,573,425	$ 3,751,868	$ 1,656,076	$ 155,826
Bridge Maintenance - Joints	$ 1,155,000	$ 2,287,026	$ 1,516,850	$ 460,985	$ 71,388
Bridge Preservation	$ 2,493,922	$ 600,348	$ -	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ -	$ -	$ -	$ -
Drawbridge Maintenance	$ 7,557,601	$ 6,380,659	$ 2,434,718	$ -	$ -
Painting - Structural	$ 5,297,610	$ 4,630,975	$ 542,013	$ -	$ -
Structures Maintenance	$ 1,828,780	$ 225,000	$ 130,601	$ -	$ -
04 - Capacity					
Hwy Reconstr - Added Capacity	$ -	$ -	$ -	$ -	$ -
05 - Facilities					
Vertical Construction (Ch 149)	$ 4,291,871	$ 2,605,059	$ 2,272,733	$ 695,293	$ -
07 - Intersection Improvements					
Traffic Signals	$ 3,023,006	$ 2,194,146	$ 444,178	$ 144,000	$ -
08 - Interstate Pavement					
Resurfacing Interstate	$ -	$ -	$ -	$ -	$ -
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$ -	$ -	$ -	$ -	$ -
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$ -	$ 489,886	$ 839,805	$ 209,951	$ -
Resurfacing	$ 10,466,353	$ 4,796,360	$ 3,271,364	$ 696,316	$ -
Resurfacing DOT Owned Non-Interstate	$ 4,792,047	$ 3,639,973	$ 1,657,155	$ -	$ -
11 - Roadway Improvements					
Asbestos Removal	$ -	$ -	$ -	$ -	$ -
Catch Basin Cleaning	$ 1,786,357	$ 1,529,801	$ 1,350,344	$ 285,946	$ -
Contract Highway Maintenance	$ 4,636,076	$ 2,012,347	$ 634,879	$ 69,639	$ -
Crack Sealing	$ 2,415,593	$ 1,371,677	$ 425,506	$ -	$ -
Culvert Maintenance	$ 496,297	$ 588,151	$ -	$ -	$ -
Culvert Reconstruction/Rehab	$ -	$ -	$ -	$ -	$ -
Drainage	$ 8,098,326	$ 4,940,500	$ 3,473,204	$ 524,839	$ -
Guard Rail & Fencing	$ 6,443,072	$ 2,462,423	$ 1,440,851	$ 425,823	$ -
Highway Sweeping	$ 973,750	$ 1,128,020	$ 1,224,735	$ 160,245	$ -
Landscaping	$ 799,028	$ -	$ -	$ -	$ -
Mowing and Spraying	$ 2,705,380	$ 2,790,093	$ 1,240,827	$ 126,229	$ -
Sewer and Water	$ 11,200	$ 583	$ 1,100	$ 733	$ -
Tree Trimming	$ 3,834,965	$ 3,443,210	$ 2,634,418	$ 449,600	$ -
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$ 2,402,766	$ 558,020	$ 222,630	$ -	$ -
13 - Safety Improvements					
Electrical	$ 1,026,290	$ 262,366	$ -	$ -	$ -
Impact Attenuators	$ 823,156	$ 870,993	$ 1,086,817	$ 634,834	$ 254,897
Lighting	$ 2,163,221	$ 1,881,231	$ 421,297	$ 81,000	$ -
Pavement Marking	$ 3,757,747	$ 3,227,399	$ 983,304	$ 194,783	$ -
Safety Improvements	$ 619,617	$ 225,000	$ 33,595	$ -	$ -
Sign Installation/Upgrading	$ 249,246	$ 361,674	$ 498,880	$ 227,526	$ -
Structural Signing	$ 773,069	$ 237,152	$ 119,607	$ -	$ -
Section I Total:	**$ 137,493,673**	**$ 89,185,143**	**$ 48,846,114**	**$ 9,719,221**	**$ 482,110**
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding					
Snow and Ice Operations & Materials					
	$ 73,700,000	$ 45,000,000	$ 45,000,000	$ 45,000,000	$ 45,000,000
District Maintenance Payroll					
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	$ 33,575,810	$ 34,583,084	$ 35,620,577	$ 36,689,194	$ 37,789,870
Section II Total:	**$ 107,275,810**	**$ 79,583,084**	**$ 80,620,577**	**$ 81,689,194**	**$ 82,789,870**
Grand Total NFA:	**$ 244,769,483**	**$ 168,768,228**	**$ 129,466,691**	**$ 91,408,415**	**$ 83,271,980**

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT (cont., 4)

Operating and Maintenance Expenditures as of April 2021

Statewide and District Contracts

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 2: Federal Aid					
Section I - Federal Aid Maintenance Projects					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ 25,063	$ -	$ -	$ -	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 461,411	$ 2,340,702	$ 770,671	$ -	$ -
Bridge Maintenance - Deck Repairs	$ -	$ -	$ -	$ -	$ -
Bridge Maintenance - Joints	$ -	$ -	$ -	$ -	$ -
Bridge Preservation	$ -	$ -	$ -	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ -	$ -	$ -	$ -
Drawbridge Maintenance	$ -	$ -	$ -	$ -	$ -
Painting - Structural	$ 2,336,224	$ 2,748,097	$ 276,981	$ -	$ -
Structures Maintenance	$ 112,207	$ -	$ -	$ -	$ -
04 - Capacity					
Hwy Reconstr - Added Capacity	$ -	$ -	$ -	$ -	$ -
05 - Facilities					
Vertical Construction (Ch 149)	$ -	$ -	$ -	$ -	$ -
07 - Intersection Improvements					
Traffic Signals	$ 5,391	$ -	$ -	$ -	$ -
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	$ 102,976	$ -	$ -	$ -	$ -
Guard Rail & Fencing	$ -	$ -	$ -	$ -	$ -
Highway Sweeping	$ -	$ -	$ -	$ -	$ -
Landscaping	$ -	$ -	$ -	$ -	$ -
Mowing and Spraying	$ -	$ -	$ -	$ -	$ -
Sewer and Water	$ -	$ -	$ -	$ -	$ -
Tree Trimming	$ -	$ -	$ -	$ -	$ -
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$ 463	$ -	$ -	$ -	$ -
13 - Safety Improvements					
Electrical	$ -	$ -	$ -	$ -	$ -
Impact Attenuators	$ -	$ -	$ -	$ -	$ -
Lighting	$ -	$ -	$ -	$ -	$ -
Pavement Marking	$ -	$ -	$ -	$ -	$ -
Safety Improvements	$ -	$ -	$ -	$ -	$ -
Sign Installation/Upgrading	$ 124,116	$ -	$ -	$ -	$ -
Structural Signing	$ 858,527	$ 180,823	$ -	$ -	$ -
Section I Total:	**$ 4,026,377**	**$ 5,269,622**	**$ 1,047,651**	**$ -**	**$ -**
Grand Total Federal Aid:	**$ 4,026,377**	**$ 5,269,622**	**$ 1,047,651**	**$ -**	**$ -**

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT (cont., 5)

Operating and Maintenance Expenditures as of April 2021

Boston Region

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 1: Non-Federal Aid					
Section I - Non Federal Aid Maintenance Projects - State Bondfunds					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ -	$ -	$ -	$ -	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 581,429	$ -	$ -	$ -	$ -
Bridge Maintenance - Deck Repairs	$ -	$ -	$ -	$ -	$ -
Bridge Maintenance - Joints	$ -	$ -	$ -	$ -	$ -
Bridge Preservation	$ 1,657,995	$ 900,000	$ -	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ 175,570	$ 526,709	$ 526,709	$ 43,892
Drawbridge Maintenance	$ -	$ -	$ -	$ -	$ -
Painting - Structural	$ -	$ -	$ -	$ -	$ -
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	$ -	$ 1,246,592	$ -	$ -	$ -
Catch Basin Cleaning	$ -	$ -	$ -	$ -	$ -
Contract Highway Maintenance	$ -	$ -	$ -	$ -	$ -
Crack Sealing	$ -	$ -	$ -	$ -	$ -
Culvert Maintenance	$ -	$ -	$ -	$ -	$ -
Culvert Reconstruction/Rehab	$ 444,173	$ -	$ -	$ -	$ -
Drainage	$ 80,000	$ 89,669	$ -	$ -	$ -
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	$ -	$ -	$ -	$ -	$ -
Section I Total:	**$ 2,763,597**	**$ 2,411,831**	**$ 526,709**	**$ 526,709**	**$ 43,892**
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding					
Snow and Ice Operations & Materials					
	$ -	$ -	$ -	$ -	$ -
District Maintenance Payroll					
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	$ -	$ -	$ -	$ -	$ -
Section II Total:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grand Total NFA:	**$ 2,763,597**	**$ 2,411,831**	**$ 526,709**	**$ 526,709**	**$ 43,892**

Table G-1: FFYs 2021–25 Operations and Maintenance Summary: MassDOT (cont., 6)

Operating and Maintenance Expenditures as of April 2021

Boston Region

Program Group/Sub Group	Est SFY 2021 Spending	Est SFY 2022 Spending	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending
Part 2: Federal Aid					
Section I - Federal Aid Maintenance Projects					
01 - ADA Retrofits					
New Sidewalks and Curbing	$ -	$ -	$ -	$ -	$ -
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$ -	$ -	$ -	$ -	$ -
03 - Bridge					
Bridge Maintenance	$ 98,849	$ 1,087,342	$ -	$ 2,357,142	$ -
Bridge Maintenance - Deck Repairs	$ -	$ -	$ -	$ -	$ -
Bridge Maintenance - Joints	$ -	$ -	$ -	$ -	$ -
Bridge Preservation	$ -	$ -	$ -	$ -	$ -
Bridge Reconstruction/Rehab	$ -	$ -	$ -	$ -	$ -
Drawbridge Maintenance	$ -	$ -	$ -	$ -	$ -
Painting - Structural	$ -	$ -	$ -	$ -	$ -
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	$ 6,701,881	$ 5,667,317	$ 1,142,516	$ 10,155	$ -
Pavement Marking	$ -	$ -	$ -	$ -	$ -
Safety Improvements	$ -	$ -	$ -	$ -	$ -
Sign Installation/Upgrading	$ -	$ -	$ -	$ -	$ -
Structural Signing	$ -	$ -	$ -	$ -	$ -
Section I Total:	**$ 6,800,731**	**$ 6,754,659**	**$ 1,142,516**	**$ 2,367,297**	**$ -**
Grand Total NFA:	**$ 6,800,731**	**$ 6,754,659**	**$ 1,142,516**	**$ 2,367,297**	**$ -**

Table G-2: FFYs 2022–26 Operations and Maintenance Summary: MBTA

Category	FY22-FY26	FY22	FY23	FY24	FY25	FY26
Operations and Maintenance Revenues ($M)						
Fare Revenue	1,926	200	350	450	462	465
Non-Fare Revenue	509	70	105	109	111	114
Sales Tax and Local Assessments	6,980	1,354	1,374	1,394	1,415	1,443
Additional State Assistance	635	127	127	127	127	127
Federal Relief & One-Time Revenue	1,311	605	503	203	-	-
Total Revenue	**11,360**	**2,355**	**2,459**	**2,283**	**2,115**	**2,149**
Operations and Maintenance Costs ($M)						
Wages, Materials, and Services and Contracts	9,748	1,887	1,897	1,937	1,995	2,032
Debt Service	2,767	468	562	548	577	612
Total Costs	**12,514**	**2,355**	**2,459**	**2,485**	**2,573**	**2,643**
Difference Between Revenues and Costs	**(1,154)**	**1**	**(0)**	**(202)**	**(458)**	**(495)**

Notes:

1. Totals may not sum due to rounding

2. FY22 estimates subject to FMCB review and based on FY22 preliminary presentation to the FMCB on 4/26/21

3. FY23-FY26 spending and revenue estimates based on March Annual Pro Forma presentation to the FMCB on 3/8/21

4. Additional state assistance displayed as part of total revenue consistent with monthly reporting to the FMCB in FY21

5. Federal relief & One-Time Revenue includes CARES Act funds, CRRSAA funds, and ARP funds along with a planned transfer of Operating Deficiency Reserve funds, along with FEMA reimbursement revenues for COVID-19 expenses

6. Federal relief & one-time revenue: The MBTA has an estimated allocation of one-time federal COVID-19 relief funding totaling $1,973M with $827M from the Coronavirus Aid, Relief, and Economic Security (CARES) Act from March 27, 2020, $301M from the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA) from December 27, 2020, and a projected $845M from the American Rescue Plan (ARP) Act from March 11, 2021. Additionally, the one-time revenue category includes FEMA reimbursement for COVID-19 expenses like PPE and cleaning costs estimated at $34M along with a planned one-time transfer of Operating Deficiency Fund reserves of $365M.

7. 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 2018–26 Operations and Maintenance Summary: MWRTA

Operating Revenue	Actual	Actual	Actual	Budgeted	Proposed Budget (4/23/2021)	Projected	Projected	Projected
	FY18	FY19	FY20	FY21	FY 22	FY 23	FY24	FY25
Farebox	$583,915	$607,985	$479,129	$574,429	$607,986	$623,186	$638,765	$654,734
Section 5339								
Section 5307	$2,190,895	$1,534,066	$922,968			$1,718,260	$2,629,760	$2,514,930
Section 5311								
CMAQ/TDM								
Cares Act Operating			$825,000	$3,298,479	$3,050,045	$74,955		
CRRSAA Proceeds						$1,337,046		
Fully Funded Brokerage								
Job Access/Reverse Commute								
New Freedom	$91,000	$-						
Advertising	$68,705	$87,950	$80,250	$85,920	$90,589	$92,853	$95,175	$97,554
Interest Income	$4,419	$7,168	$5,307	$5,950	$990			
Rental Income	$87,500	$123,844	$108,364	$108,000	$118,000	$118,000	$118,000	$118,000
Parking Revenue	$298,054	$274,999	$206,328	$219,271	$274,599	$281,464	$288,501	$295,713
State Operating Assistance	$2,662,611	$3,542,451	$3,474,631	$2,604,946	$3,112,505	$3,190,318	$3,670,076	$3,761,827
Local Assessment	$3,979,120	$4,078,598	$3,876,600	$4,172,695	$4,072,853	$4,174,675	$4,279,041	$4,386,017
Other: (Define)	$736,128	$688,727	$534,505	$421,386	$490,816	$503,087	$515,664	$528,555
TOTAL	**$10,702,347**	**$10,945,787**	**$10,513,083**	**$11,491,076**	**$11,818,383**	**$12,113,843**	**$12,234,981**	**$12,357,331**
Other - Operating (examples)								
Ins. Recoveries, misc.	$1,140	$25,904	$10,624	$12,749	$10,943	$11,216	$11,497	$11,784
Gain on Sale of Fixed Assets								
ID Income								
Miscellaneous	$4,234	$13,142	$4,283	$610				
Vending	$6,544	$5,254	$4,687	$4,587	$5,254	$5,386	$5,520	$5,658
Fuel Tax Rebate	$129,953	$53,733	$31,334	$37,601	$31,334	$32,117	$32,920	$33,743
Vehicle Repair Reimbursement	$64,783	$68,892	$74,162	$74,083	$66,178	$67,832	$69,528	$71,266
MAPC Reimbursement	$22,342	$-						

Operating Revenue	Actual	Actual	Actual	Budgeted	Proposed Budget (4/23/2021)	Projected	Projected	Projected
	FY18	FY19	FY20	FY21	FY 22	FY 23	FY24	FY25
HST Revenue	$59,120	$1,251						
CDL Workforce Development	$50,000	$17,500						
Hudson Shuttle	$125,000	$-						
Mass Bay Community College Shuttle	$170,727	$212,789	$176,674	$128,611	$212,789	$218,109	$223,562	$229,151
Travel Training Initiative	$24,324	$84,262	$76,048	$70,942	$100,000	$102,500	$105,063	$107,689
5310 ADA Above and Beyond	$77,961	$172,038						
Solar Renew Energy Credit Rev		$260	$52,770	$55,704	$52,770	$54,089	$55,441	$56,828
First Mile Last Mile Operating Grant		$11,653						
Rte 20 Operating Grant		$3,603						
Mass Dot Shuttle Reimbursement		$6,200	$66,375					
COA Training Revenue		$7,377	$11,548	$10,500	$11,548	$11,836	$12,132	$12,436
Rebate Income		$4,869						
MW Health Foundation Training Grant			$26,000	$26,000				
Other Operating Revenue	$736,128	$688,727	$534,505	$421,386	$490,816	$503,087	$515,664	$528,555
Operating Expenses	$10,702,347	$10,945,787	$10,513,083	$11,491,076	$11,818,383	$12,113,843	$12,234,981	$12,357,331

Table G-4: FFYs 2020–25 Operations and Maintenance Summary: CATA

	Actual	Current (Budgeted)	Projected	Projected	Projected	Projected
	2020	2021	2022	2023	2024	2025
Farebox	$143,035	$160,000	$120,000	$190,000	$190,000	$190,000
Section 5307	$18,238	$193,718	$200,227	$220,654	$230,970	$241,544
Section 5311	$-	$-	$-	$-	$-	$-
CMAQ/TDM	$-	$-	$-	$-	$-	$-
Fully Funded	$-	$-	$-	$-	$-	$-
MassDOT Discretionary Grant	$-	$-	$96,680	$100,000	$100,000	$100,000
Community Transit Grant	$-	$46,874	$97,024	$50,000	$50,000	$50,000
Auxiliary Revenues *	$724,028	$540,765	$910,387	$500,000	$500,000	$500,000
Interest Income	$2,688	$2,000	$2,000	$2,000	$2,000	$2,000
State Contract Assistance **	$1,426,794	$1,506,637	$1,506,637	$1,544,303	$1,582,910	$1,622,483
Local Assessment	$590,570	$776,078	$795,480	$815,367	$835,751	$856,645
Total	**$2,905,353**	**$3,226,072**	**$3,728,435**	**$3,422,324**	**$3,491,632**	**$3,562,672**
Operating Expenses ***	Previous	Current	Year Two	Year Three	Year Four	Year Five
	2020	2021	2022	2023	2024	2025
	$2,905,353	$3,226,072	$3,728,435	$3,422,324	$3,491,632	$3,562,672

* 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