CENTRAL MASSACHUSETTS

METROPOLITAN PLANNING ORGANIZATION

CMMPO Draft 2025 – 2029 Transportation Improvement Program (TIP)

April 17, 2024

Document Prepared by:
Staff of the Central Massachusetts Metropolitan Planning Organization
1 Mercantile Street, Worcester MA 01608

Prepared in cooperation with the Massachusetts Department of Transportation and the U.S. Department of Transportation – Federal Highway Administration and the Federal Transit Administration. The views and opinions of the Central Massachusetts Metropolitan Planning Organization expressed herein do not necessarily reflect those of the Massachusetts Department of Transportation or the U.S. Department of Transportation.

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Notice of Nondiscrimination Rights and Protections to Beneficiaries

Federal Title VI/Nondiscrimination Protections
The Central Massachusetts Metropolitan Planning Organization (CMMPO) hereby states its policy to operate its programs, services and activities in full compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related federal and state statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin, including limited English proficiency, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal assistance.

Related federal nondiscrimination laws administered by the Federal Highway Administration, the Federal Transit Administration, or both prohibit discrimination on the basis of age, sex, and disability. These protected categories are contemplated within the CMMPO's Title VI Programs consistent with federal and state interpretation and administration. Additionally, the CMMPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with US Department of Transportation policy and guidance on federal Executive Order 13166.

State Nondiscrimination Protections
The CMMPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c272 §§ 92a, 98, 98a, prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability or ancestry. Likewise, CMMPO complies with the Governor's Executive Order 526, section 4, requiring all programs, activities and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

Filing a Complaint
Individuals who feel they have been discriminated against in violation of Title VI or related Federal nondiscrimination laws, must file a complaint within 180 days of the alleged discriminatory conduct to:

Ms. Janet Pierce, Executive Director
Central Massachusetts Regional Planning Commission
1 Mercantile Street, Suite 520
Worcester, MA 01608
(508) 756-7717

To file a complaint alleging violation of the State's Public Accommodation Law, contact the Massachusetts Commission Against Discrimination within 300 days of the alleged discriminatory conduct at:

Massachusetts Commission Against Discrimination (MCAD)
One Ashburton Place, 6th floor
Boston, MA 02109
(617) 994-6000
TTY: (617) 994-6196

Translation

English: If this information is needed in another language, please contact the CMRPC/CMMPO Title VI Specialist at (508) 756-7717.

Spanish: Si necesita esta información en otro lenguaje, favor contactar al especialista de Título VI de CMRPC/CMMPO al (508) 756-7717.

French: Si vous avez besoin d'obtenir une copie de la présente dans une autre langue, veuillez contacter le spécialiste du Titre VI de CMRPC/CMMPO en composant le (508) 756-7717.

Portuguese: Caso esta informação seja necessária em outro idioma, favor contatar o Especialista em Título VI do CMRPC/CMMPO pelo fone (508) 756-7717.

Vietnamese: Nếu bạn cần thông tin bằng ngôn ngữ khác, xin vui lòng liên lạc với Tiêu đề VI Chuyên CMRPC/CMMPO tại (508) 756-7717.

Chinese: 如果用另一种语言需要的信息，请联系第六章专门CMRPC/CMMPO（508）756-7717.

Afrikaans: As jy inligting nodig het in 'n ander taal, kontak asseblief die Titel VI Spesialis CMRPC/CMMPO by (508) 756-7717.

ADA/ 504 Notice of Nondiscrimination

The CMMPO does not discriminate on the basis of disability in admission to its programs, services, or activities; in access to them; in treatment of individuals with disabilities; or in any aspect of their operations. The CMMPO also does not discriminate on the basis of disability in its hiring or employment practices.

This notice is provided as required by Title II of the American with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. Questions, complaints, or requests for additional information regarding ADA and Section 504 may be forwarded to:

Ms. Janet Pierce, Executive Director
Central Massachusetts Regional Planning Commission
1 Mercantile Street
Suite 520
Worcester, MA 01608
(508) 756-7717

This notice and document are available from the CMMPO in large print, on audio tape, and in Braille upon request.

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Executive Summary

The Transportation Improvement Program (TIP) of the Central Massachusetts Metropolitan Planning Organization (CMMPO) is a federally-required planning document that lists all highway, bridge, transit, bicycle & pedestrian, and intermodal projects in the Central Massachusetts planning region that are programmed to receive federal-aid funding. In this most current TIP, projects are listed for federal fiscal years 2025 through 2029. Projects that improve air quality and safety are also listed in the TIP as well as projects of regional & statewide significance. Non federal-aid (NFA) projects, fully funded by the state, are also included for information purposes. Aware of limited statewide transportation funding resources, the annual program of projects *must* demonstrate financial constraint within the federal-aid funding targets provided to each of the state's MPOs by the Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP). The TIP document consists of three sections. These sections include the Introduction, Federal Requirements, and Regional Transportation Projects Information. Brief descriptions of each section are as follows.

Part A gives an introduction as well as discusses the development of the TIP. A summary of how the Federal Transportation Planning Factors and Emphasis Areas are reflected in the TIP is included and the development schedule which lists important dates and meetings. The Public Outreach process is also highlighted as to how all populations, stakeholders and interested parties can participate in the development of the TIP. Next, the Federal Performance Management (PM) requirements are discussed and analyzed for both highway and transit. In addition to the PM, the regional projects are listed in a table showing the relationship of the TIP projects to other state, regional, and local plans as well as to performance measures and regional goals. Next, Project Scoring & Selection is discussed, which includes the Performance-Based criteria used to score the projects and the total scores of all target projects. Additionally, other information used in selecting which projects are programmed is discussed. The last two topics in this section include a list of the various Transportation Funding Programs and the required procedures for when an Amendment or Adjustment must occur for either the highway or transit project listings.

Part B includes information that is federally-required. First, there is an overview of the TIP's financial plan for both highway and transit followed by both project listings. Next, there is an Regional Environmental Justice "Plus" (REJ+) review of the target highway projects. The review lists the projects within REJ+ neighborhoods as well as the amount of funding associated with those projects. Following REJ+, an equity analysis was also completed that lists the number of projects, number of REJ+ projects, and the total allocated funds for each community in the CMMPO region. Additionally, the Air Quality Conformity Determination for the 2025-2029 TIP

is included in this section. Lastly, there are status updates for the FFY 2024 highway and transit projects.

Part C contains additional information about the projects listed in the TIP. Shown first is a Greenhouse Gas (GHG) monitoring and evaluation analysis that was completed for all highway and transit projects. Here, the amount of qualitative or quantitative GHG savings is shown for each project. Next, a list of regionally significant projects is shown accompanied by a locus map of those projects. A summary of Advance Construction is then included based on guidance provided by MassDOT and the Federal Highway Administration (FHWA). Finally, a Highway Safety Improvement Program (HSIP) analysis was completed for the highway target projects using HSIP funds. A table that shows the HSIP-identified intersections within each project is included in this section.

Endorsement of the 2025-2029 Federal Transportation Improvement Program Listing

The Central Massachusetts Metropolitan Planning Organization (CMMPO) hereby endorses the 2025 – 2029 Transportation Improvement Program (TIP) document.

May 15, 2024

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Monica Tibbits-Nutt, Secretary and Chief Executive Officer
Massachusetts Department of Transportation
Chair, Central Massachusetts MPO

Certification of the Central Massachusetts MPO Transportation Planning Process

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

1. 23 USC 134, 49 USC 5303, and this subpart.

2. Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d) and 40 CFR part 93 and for applicable State Implementation Plan projects.

3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21.

4. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity.

5. Section 11101 (e) of the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in U.S. DOT-funded projects.

6. 23 CFR part 230, regarding implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts.

7. The provisions of the US DOT and of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38.

8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving federal financial assistance.

9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender.

10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.

11. Anti-lobbying restrictions found in 49 USC Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, or a member of Congress, in connection with the awarding of any federal contract.

April 17, 2024

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Monica Tibbits-Nutt, Secretary and Chief Executive Officer
Massachusetts Department of Transportation
Chair, Central Massachusetts MPO

Certification of the Central Massachusetts MPO Transportation Planning Process

310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation

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

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

April 17, 2024

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Monica Tibbits-Nutt, Secretary and Chief Executive Officer
Massachusetts Department of Transportation (MassDOT)
Chair, Central Massachusetts MPO (CMMPO)

Listing of Acronyms

ABP:	Accelerated Bridge Program
AC	Advanced Construction
ADA:	Americans with Disabilities Act of 1990
BIL:	Bipartisan Infrastructure Law
BMS:	Bridge Management System
CAAA:	Clean Air Act Amendments
CIP:	Capital Investment Plan
CMAQ:	Congestion Mitigation Air Quality
CMMPO:	Central Massachusetts Metropolitan Planning Organization
CMP:	Congestion Management Process
CMRPC:	Central Massachusetts Regional Planning Commission
CO:	Carbon Monoxide
CO2:	Carbon Dioxide
CRP:	Carbon Reduction Program
CRRSAA:	Coronavirus Response & Relief Supplemental Appropriations Act
CY:	Calendar Year
DCR:	Department of Conservation and Recreation
DEP:	Department of Environmental Protection
DOD:	Department of Defense
DOT:	Department of Transportation
EJ:	Environmental Justice
EPA:	Environmental Protection Agency
EPDO:	Equivalent Property Damage Only
eSTIP:	Electronic STIP
EV:	Electric Vehicles
FAST ACT	Fixing America's Surface Transportation Act
FFY	Federal Fiscal Year
FHWA:	Federal Highway Administration
FLMA:	Federal Land Management Agency
FRA:	Federal Railroad Administration
FTA:	Federal Transit Administration
FY:	Fiscal Year
GANs:	Grant Anticipation Notes
GHG	Greenhouse Gas
GIS:	Geographic Information System
GWSA:	Global Warming Solutions Act
HIP:	Highway Infrastructure Program
HPMS:	Highway Performance Monitoring System
HPP:	High Priority Project
HSIP:	Highway Safety Improvement Program
IIJA:	Infrastructure Investment and Jobs Act

IM:	Interstate Maintenance
IRI:	International Roughness Index
ITS:	Intelligent Transportation Systems
LEP:	Limited English Proficiency
LOTTR:	Level of Travel Time Reliability
LRTP:	Long Range Transportation Plan
MaPIT:	Massachusetts Project Intake Tool
MAP-21:	Moving Ahead for Progress in the 21st Century Act
MARPA:	Massachusetts Association of Regional Planning Agencies
MARTA:	Massachusetts Association of Regional Transit Authorities
MassDOT:	Massachusetts Department of Transportation
MBTA:	Massachusetts Bay Transportation Authority
MOU:	Memorandum of Understanding
MPO:	Metropolitan Planning Organization
MVP:	Municipal Vulnerability Preparedness
NAAQS:	National Ambient Air Quality Standards
NBIS:	National Bridge Inventory Standards
NBS:	Nature-Based Solutions
NEVI:	National Electric Vehicle Infrastructure
NFA:	Non Federal-Aid
NGBP:	Next Generation Bridge Program
NHFP	National Highway Freight Program
NHPP:	National Highway Performance Program
NHS:	National Highway System
NOx:	Any of the Oxides of Nitrogen
NPMRDS:	National Performance Management Research Dataset
NTD:	National Transit Database
ODCR:	Office of Diversity and Civil Rights
O_3:	Ozone
OTP	Office of Transportation Planning
PBPP:	Performance-Based Planning & Programming
PDA:	Priority Development Area
PEA:	Planning Emphasis Area
PEL:	Planning & Environmental Linkages
PHED:	Peak Hour Excessive Delay
PL:	Metropolitan Planning funds (federal)
PM:	Performance Measures
PMS:	Pavement Management System
PPP:	Public Participation Program
PRC:	Project Review Committee
PROTECT:	Promoting Resilient Operations for Transformative, Efficient, & Cost Saving Transportation
PSI:	Pavement Serviceability Index
PTASP:	Public Transportation Agency Safety Plan

RITIS:	Regional Integrated Transportation Information System
ROW:	Right Of Way
RPA:	Regional Planning Agency
RSA:	Roadway Safety Audit
RTA:	Regional Transit Authority
RTACAP	Regional Transit Authority Capitol Assistance
RTP:	Regional Transportation Plan
SD:	Structurally Deficient
SGR:	State of Good Repair
SHSP	Strategic Highway Safety Plan
SIP:	State Implementation Plan (for Air Quality)
SMS:	Safety Management System
SOV:	Single Occupancy Vehicle
SRTS	Safe Routes to School
STIP:	State Transportation Improvement Program
STBG:	Surface Transportation Block Grant Program
TAM:	Transit Asset Management Plan
TAMP:	Transportation Asset Management Plan (Highway)
TAP:	Transportation Alternative Program
TDC:	Transportation Development Credits
TEC:	Transportation Evaluation Criteria
TERM:	Transit Economic Requirements Model
TFPCC	Total Federal Participating Construction Cost
TIP:	Transportation Improvement Program
Title VI	Title VI of the Civil Rights Act of 1964
TTTR:	Truck Travel Time Reliability
ULB:	Useful Life Benchmark
UPWP:	Unified Planning Work Program
UZA:	Urbanized Area
VMT:	Vehicle Miles of Travel
VOC:	Volatile Organic Compounds
WRTA:	Worcester Regional Transit Authority
YOE:	Year of Expenditure
3C:	Continuing, Cooperative & Comprehensive (planning process)

Central Massachusetts Metropolitan Planning Organization (CMMPO)

Listing of CMMPO Members

1. **Monica Tibbits-Nutt**, Acting Secretary of Transportation, MassDOT
2. **Jonathan Gulliver,** Administrator, MassDOT-Highway
3. **Robert Hassinger**, CMRPC Chairperson
4. **Joshua Rickman**, WRTA Administrator
5. **Eric Batista**, Worcester City Manager
6. **Stephanie Mulroy**, Holden Select Board, North Subregion Representative
7. **Shelby Marshall,** Westborough Select Board, Northeast Subregion Representative
8. **Jesse Limanek,** Sutton Select Board, Southeast Subregion Representative
9. **John Daniel,** Southbridge Select Board, Southwest Subregion Representative
10. **Rich Eichacker,** Warren Select Board, West Subregion Representative

Ex-Officio Members (Non-Voting):

1. **Eric Papetti,** FTA Liaison
2. **Joshua Barber,** FHWA Liaison
3. **Adam Menard,** MPO Advisory Committee Designee

CMMPO Advisory Committee

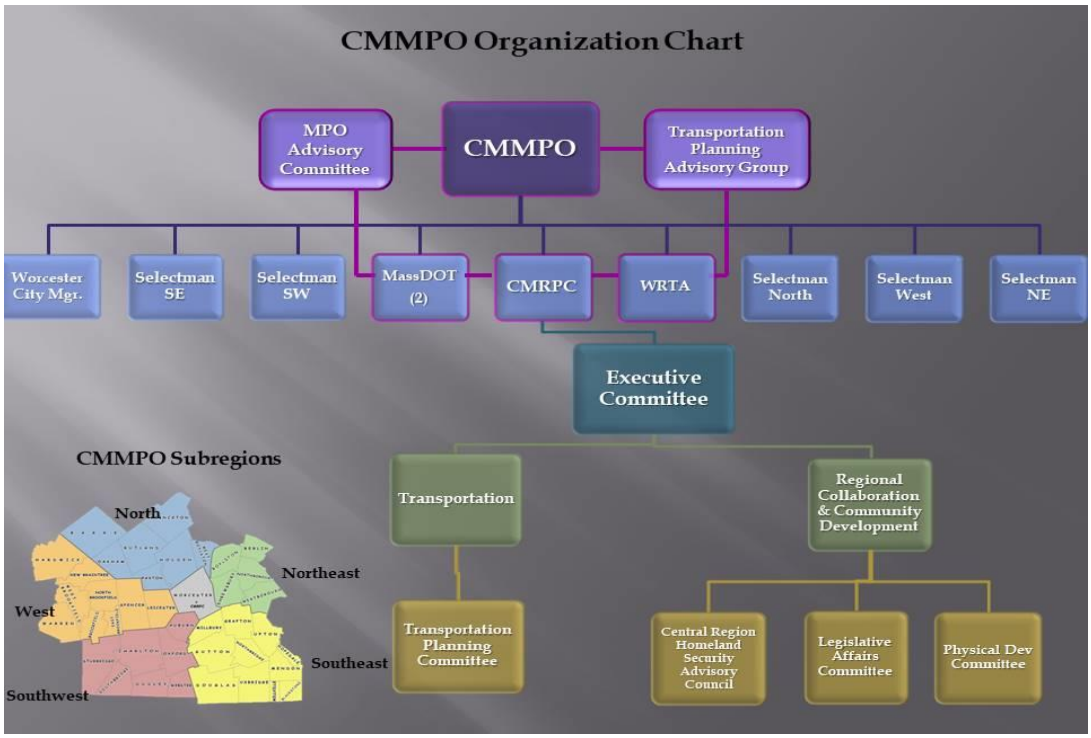
Listing of MPO Advisory Committee Members and Organizations:

1. **Daryl Amaral,** MassDOT District #2
2. **Sandy Amoakohene**, Worcester Division of Public Health
3. **Ethan Belding,** Central Mass Agency on Aging
4. **Matt Benoit**, Douglas Town Planner
5. **Sarah Bradbury**, MassDOT-H District 3 (alternate)
6. **Benjamin Breger**, MassDOT District #2 (alternate)
7. **John Charbonneau**, Rutland Town Planner
8. **Joanne Clarke**, AARP
9. **Tom Coyne,** WRTA
10. **Benji Kemper,** Center for Living and Working
11. **Caleigh McClaren**, Blackstone Watershed Collaborative
12. **Adam Menard**, Auburn Town Planner
13. **Conor McCormick**, Millbury Town Planner
14. **Claudia Oliveira de Paiva**, Latino Education Institute (LEI)
15. **Chris Payant,** Westborough DPW Director
16. **Collin Reuter**, Green Hill Park Coalition
17. **Alex Salcedo**, Massbike
18. **Ann Sullivan**, Projects Engineer, MassDOT-H District 3
19. **Karen Valentine Goins,** BikeWalk Worcester

Ex-Officio Members (Non-Voting):

1. **Chris Klem**, MassDOT OTP
2. **Derek Krevat,** MassDOT OTP
3. **Joshua Barber,** FHWA Liaison

A Metropolitan Planning Organization (MPO) is a transportation policy-making body made up of representatives from local government and transportation agencies with authority and responsibility in metropolitan planning areas. The CMMPO is made up of 10 voting members. The members include MassDOT Secretary of Transportation, MassDOT Highway Administrator, WRTA, CMRPC, the Worcester City Manager, and one selectman from each of the remaining five subregions. Below is a chart of the CMMPO organization as well as the relationships to other boards or committees. The Transportation and Regional Collaboration & Community Development departments of the CMPRC provide recommendations and knowledge to the Executive Committee chair, which is the CMRPC representative to the MPO. The Transportation Planning Advisory Group, which advises the WRTA representative of transit-related issues. The MPO Advisory Committee provides recommendations to the CMMPO on specific strategies or projects. The Advisory Committee may also provide technical analysis, specialized knowledge, and stakeholder input on specific issues. This committee is made up of town officials and representatives from various agencies. Often, Advisory Committee members have expertise in areas other than transportation, such as public health or environmental protection.



Part A: Introduction

The Transportation Improvement Program (TIP) of the Central Massachusetts Metropolitan Planning Organization (CMMPO) is a federally-required planning document that lists all highway, bridge, transit, bicycle & pedestrian, and intermodal projects in the Central Massachusetts planning region that are programmed to receive federal-aid funding. In this most current TIP, projects are listed for federal fiscal years 2025 through 2029. Projects that improve air quality and safety are also listed in the TIP as well as projects of regional & statewide significance. Non federal-aid (NFA) projects, fully funded by the state, are also included for informational purposes. Aware of limited statewide transportation funding resources, the annual program of projects must demonstrate financial constraint within the federal-aid funding targets provided to each of the state's MPOs by the Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP).

This document is the product of a comprehensive, continuous, and cooperative effort to improve and sustain the transportation systems of the Central Massachusetts Region. The decisions and priorities established within are derived and shaped through outreach to and input from local officials, the CMMPO, the Worcester Regional Transit Authority (WRTA), the Central Massachusetts Regional Planning Commission (CMRPC), the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the MassDOT OTP, the MassDOT Highway Division and all interested individuals, organizations, and stakeholders in the public at large. Throughout the development and decision-making process, all individuals in the region are strongly encouraged to participate in the transportation planning process, voice any opinions or concerns and help shape and guide the development of this document.

The transportation staff of the CMRPC, planning staff to the CMMPO, updates the TIP project listing on an annual basis. Amendments and adjustments to the TIP also occur periodically. The CMMPO's local members are the Commission, the WRTA and six locally-elected officials, while the state members are MassDOT Secretary and MassDOT-Highway Division Administrator. Serving as counselors to the CMMPO, the CMMPO Advisory Committee, working with staff, conducts a performance-based screening assessment and prioritizes candidate TIP projects for full consideration by the CMMPO.

The project prioritization and selection processes combine an analysis of project information, an evaluation of project importance and considers funding equity. Performance Management standards used by staff measure the likely results of TIP investments in the transportation network that, among a range of goals, reduce congestion, improve pavement condition, and increase safety. Further, projects that encourage the use of public transit, bicycling and walking are also included in the TIP. The CMRPC transportation staff, working with MassDOT OTP and

the MassDOT-Highway Division District #2 & #3 offices, reviews engineering design, right-of-way acquisition and environmental status information for each candidate project. This occurs on "TIP Readiness Day" which was held on 2/6/24 this year. If necessary, community officials and/or engineering consultants are also contacted to obtain design status updates. Throughout the development of the TIP, the CMMPO oversees a comprehensive outreach effort, following the CMMPO endorsed Public Participation Plan (PPP) that provides numerous opportunities for public involvement. Typically beginning in January, the TIP development process ends in May when the CMMPO acts to endorse the finalized project listing and associated documentation.

Once endorsed, the CMMPO TIP is forwarded to MassDOT OTP where it is combined with the TIP listings produced by all the state's planning regions. The resulting document, the State Transportation Improvement Program (STIP), is forwarded to the FHWA, the FTA and the Environmental Protection Agency (EPA) for their approval. Once these approvals are obtained, federal-aid transportation funds can be made available to construct the projects programmed in the TIP.

Summarized below are some of the major aspects of the CMMPO's annual TIP development effort:

- **Performance Management**: Reaffirmed by the new Bipartisan Infrastructure Law (BIL), the CMMPO is continuing the evolution of the development of performance-driven TIP project listings. Performance-Based Planning and Programming (PBPP) is intended to improve public transparency, fiscal accountability, and the investment decisions affecting the condition and performance of the transportation system. US DOT provides guidance for safety (PM1), pavement and bridge (PM2), and system performance, freight, and air quality (PM3). The national criteria, accepted by the CMMPO and MassDOT, will continue to be used to measure the likely results of TIP investments. Similarly, for the RTA's, the Transit Asset Management (TAM) Plans pertain to the condition of the vehicles, equipment, and facilities while the Public Transportation Agency Safety Plans (PTASP) measure the ongoing safety aspects of the RTA's.
- **Congestion Mitigation Air Quality (CMAQ) Improvement Program**: The completion of required calculations and the compilation of other standard materials necessary to support projects programmed under the "CMAQ" funding category. Staff attend periodically scheduled meetings of the statewide CMAQ Consultation Committee to determine project eligibility as necessary and to stay informed on other state air quality planning activities.
- **Highway Safety Improvement Program (HSIP)**: Projects analytically derived through the "Top 200" HSIP listing will strongly be considered for TIP programming by the CMMPO. There are currently 19 locations in the CMMPO region that are within the State's Top 200. The ranking and locations are:

- 19 – Worcester – Park Ave at May St
- 32 – Worcester – Southbridge St at Hammond St
- 56 – Sutton – Route 146 at Boston Rd
- 60 – Worcester – Burncoat St at Millbrook St
- 71 – Worcester – Chandler St at Piedmont St
- 75 – Worcester – Chandler St at Mason St
- 80 – Charlton – Stafford St at Center Depot Rd
- 93 – Worcester – Belmont St at Elizabeth St
- 94 – Westborough – Route 9 at Lyman St
- 95 – Worcester – East Central St at Summer St
- 106 – Worcester – Lincoln St at Catherine St
- 113– Worcester – Belmont St at Edward St
- 135 – Worcester – Belmont St at Converse St
- 138 – Worcester – Grove St at Chester St
- 167 – Worcester – Route 146 at McKeon Rd
- 169 – Worcester – Mountain St West at I-190 SB CD Rd
- 176 – Worcester – Lincoln Sq at Main St
- 186 – Worcester – May St at June St
- 198 – Worcester – Main St at Mill St

- **Regional Environmental Justice "Plus" Communities (REJ+)**: Staff continues participation in statewide efforts to refine standard approaches to assessing both the benefits and adverse impacts resulting from TIP projects that will be implemented in identified REJ+ communities. The REJ+ communities include low income, minority, Limited English Proficiency (LEP), zero vehicle households, households with disabilities, and households with persons 65+ years of age. Staff works to ensure that these populations are included in the planning process for the TIP project listings for both highway & transit along with necessary associated documentation.

- **Environmental Consultation**: An annual effort, staff continues to engage the environmental community, town officials and other stakeholders in discussions regarding key areas of environmental concern associated with the overall TIP program, focusing on avoiding, minimizing, and mitigating potential adverse impacts. Further, staff continues to refine an ongoing process that considers a broad range of environmental aspects when projects are being considered for TIP programming. GIS-based "Environmental Profiles" are used to provide an analytical aspect to environmental advantages and challenges. These maps, compiled by the CMMPO staff, provide data on the status of culverts, general land use in the region, wetlands, flood zones, vernal pools, and habitats of rare species.

- **GIS Analysis Techniques**: Staff's GIS capabilities are used to indicate project locations as well as aerial photography, drone imagery or digital photographs taken in the field. Project locus maps and EJ maps for programmed projects are included in the TIP document and Technical Appendix.
- **Implementing Agencies**: As deemed necessary, meeting with MassDOT OTP and the Highway Division District #2 and #3 staff as needed to obtain project information. Similarly, meetings with the WRTA Administrator and staff concerning transit-related projects also occur periodically.
- **Technical Assistance**: Staff provides technical assistance to host communities and public agencies as necessary by holding informational "TIP Development" meetings. Presently, all new projects must be initiated through the Massachusetts Project intake Tool (MaPIT), a web-based application designed to help both state and municipal proponents map, create, and initiate transportation projects, while screening against all relevant in-house GIS resources. Available to all communities, the MaPIT application streamlines the project initiation procedure and serves as the primary interface for all MassDOT Highway Division projects. This tool automatically screens against all relevant GIS layers, maps the project location for DOT and public viewing, quickly transfers information to MassDOT, while also expediting project initiation, environmental permitting, scoring, and project delivery.
- **Public Outreach**: The CMMPO's formal PPP encourages early involvement of local legislators, chief local officials, stakeholders, citizens, and other interested parties with full consideration of the principles of Environmental Justice. Host communities are periodically contacted by staff, on behalf of the CMMPO, for TIP project information and status updates. All public and committee meetings have been held virtually since the Covid pandemic. Hybrid virtual/in-person meetings are also used when needed. Open Meeting Law regulations will continue to be followed.

1.) 2025-2029 TIP Development Effort: How the CMMPO addresses the Federal Transportation Planning Factors & Emphasis Areas

Consideration of the federal transportation planning factors and emphasis areas shall be reflected, as appropriate, in the metropolitan transportation planning process. The degree of consideration and analysis of the factors is based on the scale and complexity of many issues, including multimodal transportation system development, land use, employment, economic development, human & natural environment, and housing & community development.

- **Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.**
  - TIP process encourages those projects that enhance economic vitality & bring efficiency to the system.
  - Public participation activities and emphasizing Title VI/REJ+ communities support global, balanced competitiveness.
  - Established Performance Measures include reducing delays & increasing safety along freight routes and improving accessibility to jobs in the CMMPO region for all modes of travel.
- **Increase the safety of the transportation system for motorized and non-motorized users.**
  - The TIP programming process considers projects that improve safety for all users.
  - Public participation activities help in understanding safety concerns from the user's perspective.
  - Eligible HSIP target projects are included in the TIP.
  - The TIP has a multimodal vision: highways, transit, bicycle, and pedestrian.
- **Increase the security of the transportation system for motorized and non-motorized users.**
  - ITS is considered an important measure to increase network security.
  - Primary evacuation routes are fully considered as the TIP includes projects on major NHS highways.
  - The TIP scoring also considers projects that have potential hazardous locations listed in the host community's Hazard Mitigation Plan or Municipal Vulnerability Preparedness (MVP) Plan.
  - The TIP has a multimodal vision: highways, transit, bicycle, and pedestrian.
- **Increase accessibility and mobility of people and freight.**
  - The TIP programming process considers projects that increase accessibility and mobility for all users.
  - The TIP includes projects that improve travel time reliability and increase safety on major freight routes.

- MassDOT's Healthy Transportation Initiative encourages mode shift with transit, bicycle, and pedestrian amenities.
- Transportation Alternatives Program (TAP) funding is targeted for improved bicycle & pedestrian access.

- **Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.**
  - The TIP programming process encourages projects that protect the environment and promote quality of life.
  - Sustainability Performance Measures are used to screen TIP projects.
  - The TIP considers and includes projects that reduce congestion and emissions. Federal CMAQ project eligibility is determined; similarly, state GHG analyses are completed.
  - The TIP development process includes the annual Environmental Consultation session. Early in project development, proponents are encouraged to seek ways to avoid, minimize & effectively mitigate, limiting adverse impacts.
  - Performance Measures & Targets include Priority Development Areas (PDAs). Land use aspects identified working with the CMRPC Regional Collaboration and Community Planning (RCCP) staff.
  - TAP funding is targeted for improved bicycle & pedestrian access.
- **Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.**
  - The TIP includes improvements on major roadways serving the region including the Interstate System, Route 9, Route 146, and US Route 20.
  - The TIP has a multimodal vision: highways, transit, bicycle, and pedestrian.
- **Promote efficient system management and operation.**
  - The TIP programming process seeks projects that promote efficient system management, such as ITS.
  - The TIP reflects and highlights the FTA funding for WRTA transit operations.
  - Regional highway and WRTA M&O financial summaries are provided in the TIP's accompanying Technical Appendix.
- **Emphasize the preservation of the existing transportation system.**
  - The TIP process prioritizes projects that preserve the existing system.
  - The TIP includes projects derived from ongoing Pavement Management Systems (PMS) data collection and analysis.
  - Future envisioned TIP projects could address filling inventoried gaps in the region's sidewalk networks.
- **Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts on surface transportation.**

- The annual TIP development process considers aging vulnerable culverts identified in the planning region. Replacement of the aging culvert pipes/structures is often a TIP project aspect.
- Ongoing GIS analysis used to identify vulnerable infrastructure on the region's federal-aid highway system.
- Nature-Based Solutions (NBS) are encouraged for stormwater management.

- **Enhance travel and tourism.**
  - The TIP includes improvements on major roadways serving the region, including the Interstate System, Route 9, Route 146, and US Route 20.
  - Performance-based TIP project screening considers major adjacent tourist attractions including federal lands, state parks and, as examples, agri-tourism and a range of active & passive recreation opportunities.
- **Increase resilience to extreme weather events and other disasters from the increasing effects of Climate Change and help achieve national greenhouse gas reduction goals.**
  - The TIP programming process encourages projects that protect the environment and promote quality of life.
  - The TIP considers and includes projects that reduce congestion and emissions. Federal CMAQ project eligibility is determined; similarly, state GHG analyses are completed.
  - The TIP development process includes the annual Environmental Consultation session. Early in project development, proponents are encouraged to seek ways to avoid, minimize & effectively mitigate, limiting adverse project-related impacts.
  - The annual TIP development process considers aging vulnerable culverts identified in the planning region. The replacement of the aging culvert pipes/structures is often an aspect of TIP projects.
  - NBS are encouraged for stormwater management.
  - Ongoing GIS analysis used to identify vulnerable infrastructure on the region's federal-aid highway system.
- **Support economic opportunities and advance racial equity for underserved and disadvantaged communities.**
  - The TIP process encourages those projects that enhance economic vitality & bring efficiency to the system.
  - The TIP programming process considers projects that improve safety for all users.
  - The TIP programming process considers projects that increase accessibility and mobility for all users in all communities.
  - Public participation activities emphasizing Title VI/REJ+ communities in turn provide support for global, balanced competitiveness.
  - The TIP scoring criteria considers REJ+ neighborhoods.
  - Equity analysis is completed during the TIP development effort.

- Demand response service included for the elderly within the WRTA.
- MassDOT's Healthy Transportation Initiative encourages mode shift with transit, bicycle, and pedestrian amenities.
- TAP funding is targeted for improved bicycle & pedestrian access.

- **Provide an equitable and safe transportation network for travelers of all ages and abilities, including those from marginalized communities.**
  - The TIP has a multimodal vision: highways, transit, bicycle, and pedestrian.
  - The TIP programming process considers projects that improve safety for all users.
  - The TIP projects include bicycle and pedestrian improvements, which includes sidewalks and ADA ramps.
  - Complete Streets criteria included in TIP project scoring.
  - The TIP includes projects along transit routes, which include transit improvements.
  - The TIP includes projects which include new shared-use paths.
- **Include early, effective, and continuous public involvement that brings diverse viewpoints into the decision-making process.**
  - Early public participation and Environmental Consultation used for new TIP projects.
  - Public participation activities help in understanding safety concerns from the user's perspective.
  - Virtual or Hybrid meetings included in TIP development process. A phone-in option is also available.
  - Project proponents were invited to participate in the TIP's scoring discussion/session.
  - MPO Advisory Committee, which makes recommendations to the CMMPO on all 3C activities, is comprised of a diverse membership.
- **Coordination with US Department of Defense (DOD) in the transportation planning and project programming process on infrastructure and connectivity needs for Strategic Highway Network (STRAHNET) routes and other public roads that connect to DOD facilities.**
  - The TIP includes improvements on major roadways serving the region, including the Interstate System, Route 9, Route 146, and US Route 20.
  - Minimal DOD interaction occurs in the planning region as there are currently no active military bases.
- **Coordination with Federal Land Management Agency (FLMA) in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to Federal lands.**
  - There are three (3) major flood control facilities in the planning region that are owned and maintained by the US Army Corps of Engineers (ACE).

- Based on FHWA guidance, staff seek participation from the officials maintaining these important federal lands as stakeholders in the annual TIP development process.

- **Encourage Planning and Environment Linkages (PEL) as part of transportation planning and environmental review process.**
  - The TIP development process includes the annual Environmental Consultation session. Early in project development, proponents are encouraged to seek ways to avoid, minimize & effectively mitigate, limiting adverse project-related impacts.
  - A broad range of environmental data layers are included in MaPIT as part of MassDOT's required initiation process for new projects.
- **Encourage data sharing and consideration in the transportation planning process.**
  - A range of various types of transportation data are collected each year.
  - Data collection results are used in TIP project scoring criteria, providing quantitative measures.
  - The TIP includes projects derived from established and ongoing PMS data collection & analysis.
  - Future envisioned TIP projects could address filling inventoried gaps in the region's sidewalk networks based on data collection findings.
  - Various data used during TIP project initiation is often critical to project design.
  - All data is available to the public and other local, regional, state, and federal agencies.

2.) 2025 to 2029 Transportation Improvement Program (TIP): Development Schedule

December 2023: Annual outreach effort for TIP begins with invitations for community presentations, currently programmed project progress updates, new project proposals or previously submitted active projects status updates.

January 17, 2024: **CMMPO meeting 4:00 PM**. TIP project presentations by invited communities. CMMPO Advisory Committee members invited to attend.

January 24, 2024: CMMPO Advisory Committee meeting, 3:00 PM.

January 31, 2024: MassDOT provides 2025 to 2029 regional federal-aid funding targets for TIP development purposes.

February 6, 2024: "TIP Readiness Day" to be held virtually at the MassDOT Highway Division District #3 office. The status of eligible TIP projects will be reviewed to inform the MPO's programming efforts. *(This is a MassDOT/CMRPC-only working session.)*

February 21, 2024: **CMMPO meeting 4:00 PM**. Annual TIP development continues. Additional TIP project presentations, if needed.

February 28, 2024: CMMPO Advisory Committee Meeting, 3:00 PM. TIP project scoring for recommendation to CMMPO.

March 20, 2024: **CMMPO meeting 4:00 PM**. Annual TIP development continues – TIP Workshop. CMMPO Advisory Committee TIP project recommendations discussed.

March 27, 2024: CMMPO Advisory Committee Meeting, 3:00 PM.

April 4, 2024: "TIP Environmental Consultation Session" held virtually, 10:00 AM.

April 17, 2024: **CMMPO meeting 4:00 PM**. MPO finalizes draft listing of programmed projects for highway and transit. Approved *Draft* TIP listings released for public review and comment; listings available on CMRPC website. 21-day public review & comment period begins, legal ad appears in the *T&G* and regionwide mailing invites all interested parties to attend public meeting.

April 24, 2024: CMMPO Advisory Committee Meeting, 3:00 PM. Comments on Draft TIP.

May 7, 2024:	2025 to 2029 TIP Draft Virtual Public Meeting, 5:00 PM.
May 8, 2024:	Public comment period on *Final Draft* TIP closed, 4:30 PM.
May 15, 2024:	**CMMPO meeting 4:00 PM**. Endorsement of *Final* TIP document considered after review of all submitted comment. TIP documentation subsequently finalized for federal agency review with accompanying Technical Appendix materials.
August/Sept 2024:	Federal agency review of CMMPO *Endorsed* TIP underway.
October 1, 2024:	Federally approved CMMPO *Endorsed* TIP is in effect and available for distribution to interested parties.

3.) Public Outreach

The CMMPO employs a comprehensive, proactive Public Participation Plan (PPP)[1] throughout the annual TIP development effort and associated implementation activities. The PPP, recently updated in December 2021, guides the CMMPO staff's outreach and engagement of all interested stakeholders, particularly by offering a wide variety of participation opportunities, responsiveness, and the reporting outcomes. The TIP Development Schedule indicates that the 2025-2029 TIP development process began in December 2023 and ended with the CMMPO's endorsement of this TIP in May 2024. Since the Covid pandemic, all meetings were either held virtually through ZOOM or as a hybrid (virtual/in-person) meeting. Instructions on how to attend the meeting using Zoom and all meeting materials being presented are posted to the meeting calendar on the CMRPC website prior to the meeting.

The TIP Development Schedule included:

- A series of five (5) CMMPO meetings open to project host communities, stakeholders, and the general public – each offering a formal opportunity for public comment;
- A series of four (4) CMMPO Advisory Committee monthly meetings during TIP development, offering attendees (including community project proponents) the opportunity to assess ongoing technical analysis and to directly participate in the screening and ranking of candidate projects, and
- The annual Environmental Consultation Session for the TIP was held virtually on April 4, 2024. Community officials, stakeholders, and the public, along with targeted outreach to the environmental community for their participation, were all encouraged to attend.

The CMMPO maintains oversight of the planning staff's work as the TIP's highway and transit project listings evolve, including the compilation of the required, and extensive, supporting documentation.

The TIP development process offers extensive participation opportunities for the CMMPO region's underserved populations. Working with oversight provided by MassDOT's Office of Diversity and Civil Rights (ODCR), the CMMPO staff conducts GIS analyses and utilizes other key information to identify and conduct outreach to REJ+ communities. When needed, both the CMMPO staff and the project host communities can use MassDOT's GeoDOT Engage tool to identify languages spoken, community organizations, and accessible meeting locations in a project area. These efforts are undertaken to ensure that underserved populations share in the benefits of CMMPO-funded transportation services and improvement projects while project impacts are mitigated to the maximum extent feasible.

[1] The most recent PPP can be viewed at Public Participation Plan

As shown in the TIP Development Schedule, the CMMPO released the draft 2025-2029 TIP project listings and supporting documentation for the federally-required 21-day public review & comment period on **4/17/24**. A virtual public meeting was held during the public review & comment period on **5/7/24** to discuss TIP development and to allow an additional opportunity for public comment. Finally, on **5/15/24**, after considering all submitted comments from federal & state agencies, stakeholders and interested parties, the CMMPO voted to endorse the 2025-2029 TIP. After CMMPO endorsement, the US DOT's FHWA and FTA will have the opportunity to review and to take any potential action prior to the effective target date of 10/1/24, the start of FFY '25.

CMMPO staff public outreach efforts continue in the TIP "off-season" that typically occurs between June-November of each TIP year. Notably, the staff has conducted numerous "TIP Development" meetings for community officials and other stakeholders in the past decade. The CMMPO staff continues working with its member communities to assist their officials in understanding the TIP development process, and to engage their active participation. Customized materials are prepared and circulated as necessary as part of ongoing outreach activities.

All comments, project status updates, and other correspondence received during the development of the 2025-2029 TIP are included in the Technical Appendix (*separate document*), while a short summary is included below.

January 2024 CMMPO Meeting: FFY 2029 candidate project presentations were given by MassDOT, towns of West Brookfield and Westborough, and the City of Worcester.

CMMPO Project Status Updates: Project status updates were received from the communities of East Brookfield, Oxford, Rutland, Southbridge, Spencer, Sturbridge, Upton, Uxbridge, West Brookfield, Westborough, and Worcester.

4.) Performance Measures

Overview of Performance-Based Planning and Programming

Performance-Based Planning and Programming (PBPP) refers to a transportation agency's application of performance management in their planning and programming processes. The foundation of PBPP was initially federally-legislated through Moving Ahead for Progress in the 21st Century (MAP-21) and reaffirmed in the new Bipartisan Infrastructure Law (BIL). The requirement for PBPP transformed the federal-aid highway program by establishing new requirements for performance management to ensure the most efficient investment of federal transportation funds that support the following National Goals:

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Activity
6. Environmental Sustainability
7. Reduced Project Delays

In addition to the federal requirements for Metropolitan Planning Organizations (MPOs) to integrate PBPP into their transportation processes, MPOs are required to adhere to the federal Continuing, Cooperative, and Comprehensive ("3C") Metropolitan Transportation Planning Process. For MPOs, this includes activities and products that address a range of planning emphasis areas typically undertaken by a transportation agency together with other agencies, interested stakeholders and the public. The planning emphasis areas (PEAs) of particular interest to the CMMPO are Safety, Security, State of Good Repair, Congestion, Multimodal, Sustainability, Equity, Economic Vitality & Freight Movement, Stormwater Management & Infrastructure Resiliency and Travel & Tourism. In 2021, FHWA issued updated PEAs to focus on climate change & clean energy, equity, complete streets, public involvement, Department of Defense (DOD) coordination, Federal Land Management Agency (FLMA) coordination, planning & environmental linkages, and data sharing in the transportation planning process. Each of these emphasis areas are fully considered when the CMMPO is developing strategies, projects, plans or initiatives. Examples include the following:

- Long-Range Transportation Plans (LRTPs)
- Other plans and processes, including those that are federally-required, such as Strategic Highway Safety Plans, Asset Management Plans, the Congestion Management Process
- Transit Agency Asset Management Plans and Transit Agency Safety Plans as well as others that are not required by regulation and
- Programming documents, including state and metropolitan Transportation Improvement Programs (STIPs and TIPs)

The CMMPO's PBPP process is guided by both the federal transportation performance management requirements and the MPO's own customized goals and objectives, which are included in the CMMPO's LRTP. These goals and objectives have been integrated through the various planning emphasis areas when developing transportation plans. By addressing the planning emphasis areas in all aspects of the transportation process, the CMMPO has been able to produce balanced and well-rounded transportation products for the region. Further, the overall intent of PBPP is to ensure that transportation investment decisions—both long-term planning and short-term programming—are based on the ability to meet the established goals.

Federal Performance Management Requirements

The US Department of Transportation (DOT) had previously published three performance rules that require all States, MPOs and public transit providers to interactively coordinate and set performance targets. Collectively, the three published performance measure rulemakings establish the regulations necessary to more effectively evaluate and report on safety, infrastructure condition, on-road mobile source emissions, and surface transportation performance across the Nation. State DOTs and MPOs should use the information and data subsequently generated to inform ongoing and future transportation planning and programming decisions. In turn, the FHWA and FTA use the information to more reliably assess and report on the impacts of federal funding investments.

Table 1 shows the federally-required highway performance measures.

TABLE 1: FEDERALLY-REQUIRED HIGHWAY PERFORMANCE MEASURES

National Goal	Highway Performance Area	FHWA Rule	Performance Measure	MPO Goal Area
Safety	Injuries & Fatalities	Safety (PM1)	• # of fatalities • Fatality rate per 100 million vehicle-miles traveled • # of serious injuries • Serious injury rate per 100 million vehicle-miles traveled • # of non-motorized fatalities and non-motorized serious injuries	Safety
Infrastructure Condition	Pavement Condition	Pavement & Bridge (PM2)	• % of pavements on the Interstate system in *good* condition • % of pavements on the Interstate system in *poor* condition • % of pavements on the non-Interstate NHS in *good* condition • % of pavements on the non-	State of Good Repair

TABLE 1: FEDERALLY-REQUIRED HIGHWAY PERFORMANCE MEASURES				
National Goal	**Highway Performance Area**	**FHWA Rule**	**Performance Measure**	**MPO Goal Area**
			Interstate NHS in *poor* condition	
Infrastructure Condition	Bridge Condition	Pavement & Bridge (PM2)	• % of NHS bridges by deck area classified as in *good* condition • % of NHS bridges by deck area classified as in *poor* condition	State of Good Repair
System Reliability	Performance of the National Highway System	System Performance, Freight & CMAQ (PM3)	• % of person-miles traveled on the Interstate system that are reliable • % of person-miles traveled on the non-Interstate NHS that are reliable	Congestion / Mobility
Freight Movement & Economic Vitality	Freight Movement on the Interstate System	System Performance, Freight & CMAQ (PM3)	• Truck travel time reliability on the Interstate system (average truck reliability index)	Economic Vitality / Freight
Congestion Reduction	Traffic Congestion	System Performance, Freight & CMAQ (PM3)	• Percent of non-single-occupant vehicle travel • Annual hours of peak-hour excessive delay per capita	Congestion / Mobility
Environmental Sustainability	On-Road Mobile Source Emissions	System Performance, Freight & CMAQ (PM3)	• Total emissions reduction	Reduce GHG / Promote Sustainability

The CMMPO has and will continue to set targets on a periodic basis for the three federally-required performance rules and will also continue to coordinate PBPP activities with MassDOT, the WRTA, other MPOs and stakeholders. To date, the CMMPO has consistently decided to adopt MassDOT's performance targets as they essentially match the CMMPO's trends, which has resulted in the creation of an effective, integrated, and informative PBPP process.

Safety Performance Measures (PM1)

The CMMPO has consistently voted to adopt the statewide safety performance measure targets set by MassDOT, most recently for Calendar Year (CY) 2024 at their February 21, 2024 meeting. In setting these targets, MassDOT has followed FHWA guidelines by using statewide crash data and Highway Performance Monitoring System (HPMS) data for vehicle miles traveled (VMT) to calculate 5-year, rolling average trend lines for all FHWA-defined safety measures.

Due to higher rates of speeding caused, in part, by decreased vehicle miles traveled (VMT) amid pandemic shutdowns in 2020 and the lingering impacts in 2021 and 2022, roadway fatalities and serious injuries were increasing relative to previous years. This increase meant MassDOT was unable to use a pure trendline approach to set CY 2024 targets that demonstrate constant or improved performance as required by the BIL. Rather than adopt a target that depicts an increase in the trend line, MassDOT developed targets by projecting 2023 and 2024 fatalities and serious injury to be in line with pre-COVID data. This methodology was developed to project a future downward trend without being significantly influenced by the lingering impacts of the pandemic.

In recent years, MassDOT and the CMMPO have invested in "complete streets," bicycle and pedestrian infrastructure, intersection, and safety improvements in both the Capital Investment Plan (CIP) and Statewide Transportation Improvement Program (STIP) to address increasing mode share and to incorporate safety mitigation elements into projects. Moving forward, CMMPO, alongside MassDOT, is actively seeking to improve data collection and methodology for bicycle and pedestrian VMT counts and to continue analyzing crash clusters and crash counts that include both motorized and non-motorized modes to address safety issues at these locations.

In all safety categories, MassDOT has established a long-term target of "Toward Zero Deaths" through their Performance Measures Tracker[2] and will continue to establish safety targets for the MPOs to consider for adoption each calendar year. While the MPOs are not required by FHWA to report on annual safety performance targets, FHWA guidelines require MPOs to either adopt MassDOT's annual targets or to establish their own targets each year.

The safety measures MassDOT has established for CY 2024, recently adopted by the CMMPO, are as follows:

1) Fatalities: The target number of fatalities for CY 2024 is 377, down from an average of 378 fatalities for the years 2018-2022. [See Figure 1 for the CMMPO vs. statewide comparison of the trend for this performance measure.]

[2] MassDOT Annual Performance Management Tracker Reports

2) Rate of Fatalities per 100 million VMT: The target fatality rate for CY 2024 is 0.61, equivalent to the 0.62 average for years 2018-2022. [See Figure 1 for the CMMPO vs. statewide comparison of the trend for this performance measure.]

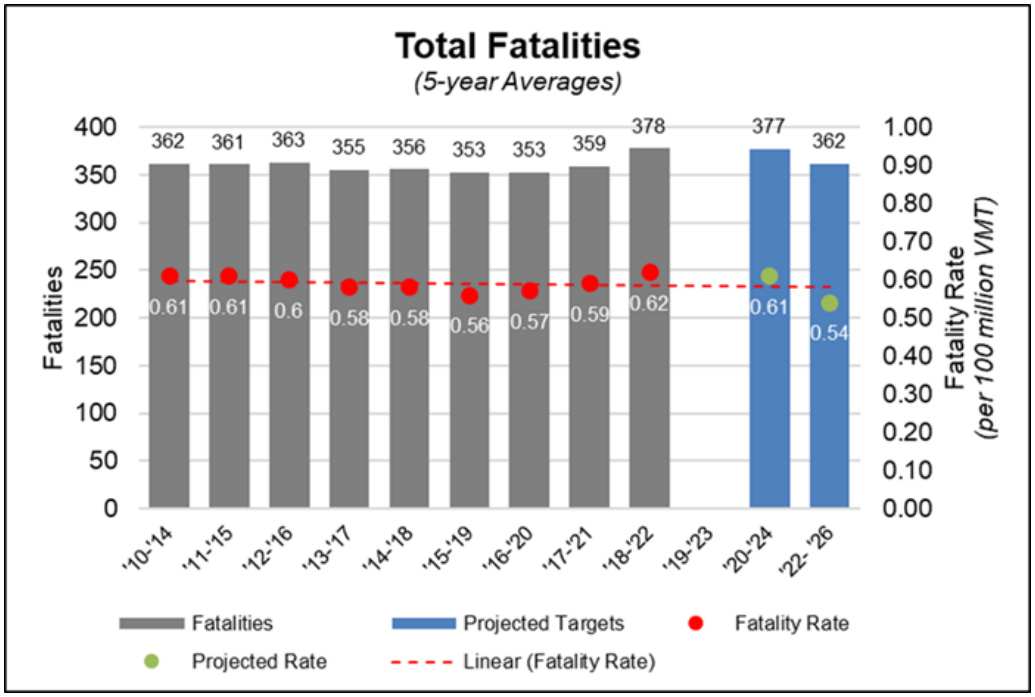
3) Serious Injuries: The target number of serious injuries for CY 2023 is 2,736, up from the average of 2,708 for the years 2018–2022 but expected to decrease to 2,560 in 2026. [See Figure 2 for the CMMPO vs. statewide comparison of the trend for this performance measure.]

4) Rate of Serious Injuries per 100 million VMT: The serious injury rate target for CY 2024 is 4.36 per year, down from the 4.42 average rate for the years 2018–2022. [See Figure 2 for the CMMPO vs. statewide comparison of the trend for this performance measure.]

5) Total Number of Combined Serious Injuries and Fatalities for Non-Motorized Modes: The CY 2024 target number of fatalities and serious injuries for non-motorists is 445 per year, down from an average of 480 during the years 2018–2022. [See Figure 3 for the CMMPO vs. statewide comparison of the trend for this performance measure.]

Figure 1

Total Fatalities and Fatality Rate comparison between MassDOT and CMMPO



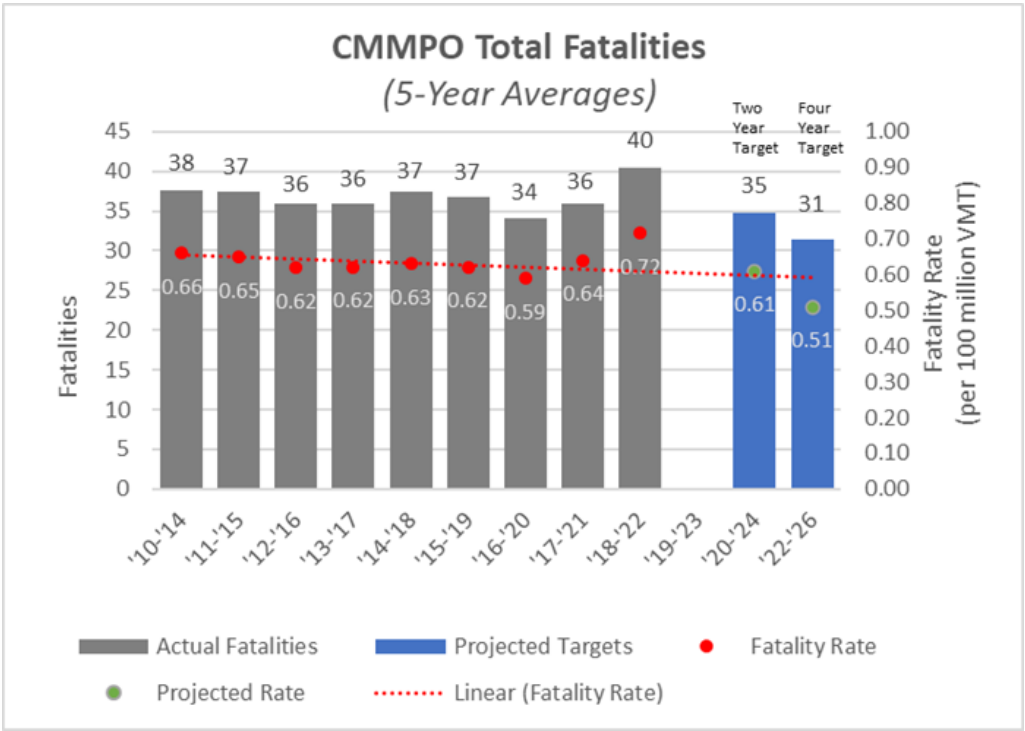
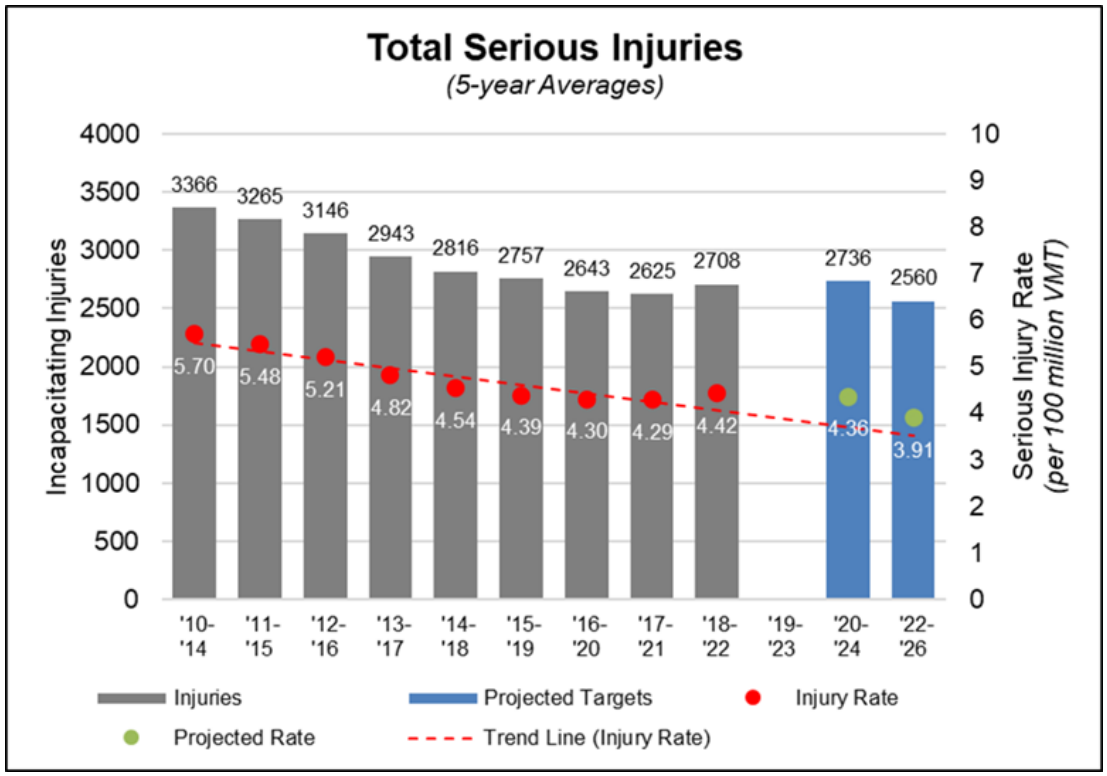


Figure 2

Total Serious Injuries and Serious Injury Rate comparison between MassDOT and CMMPO



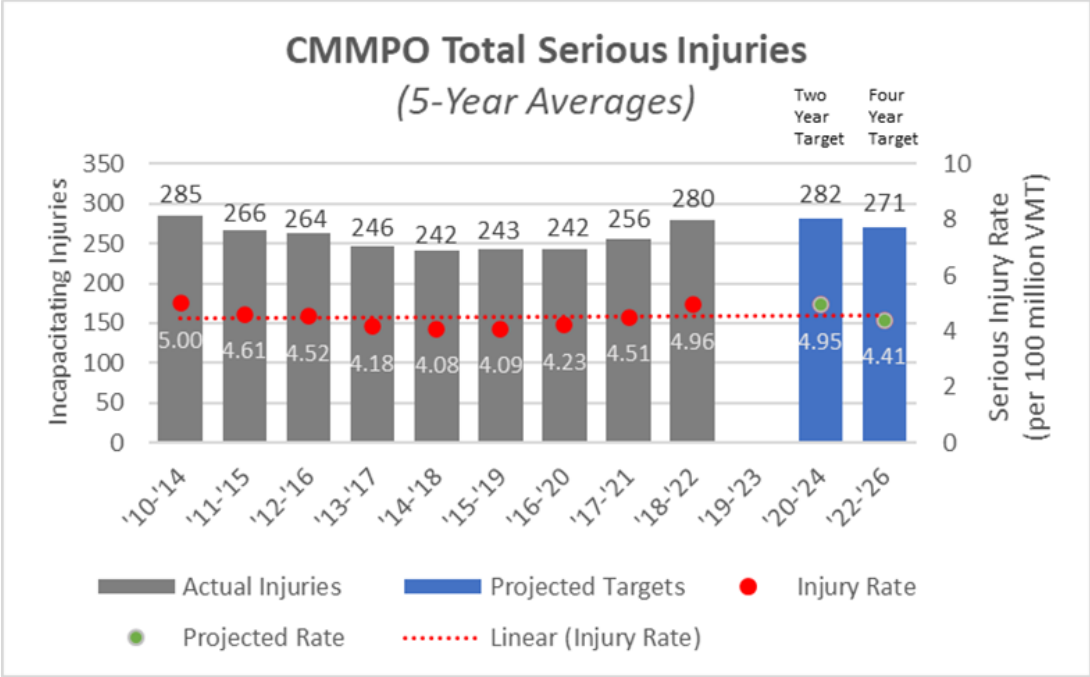
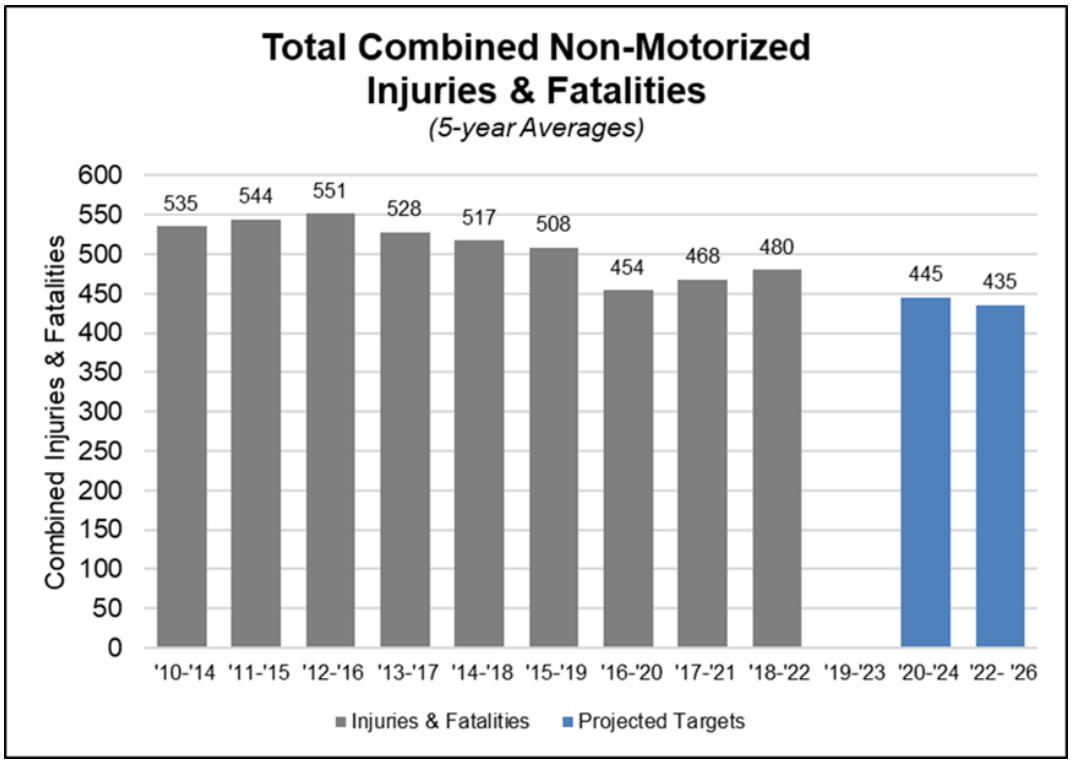
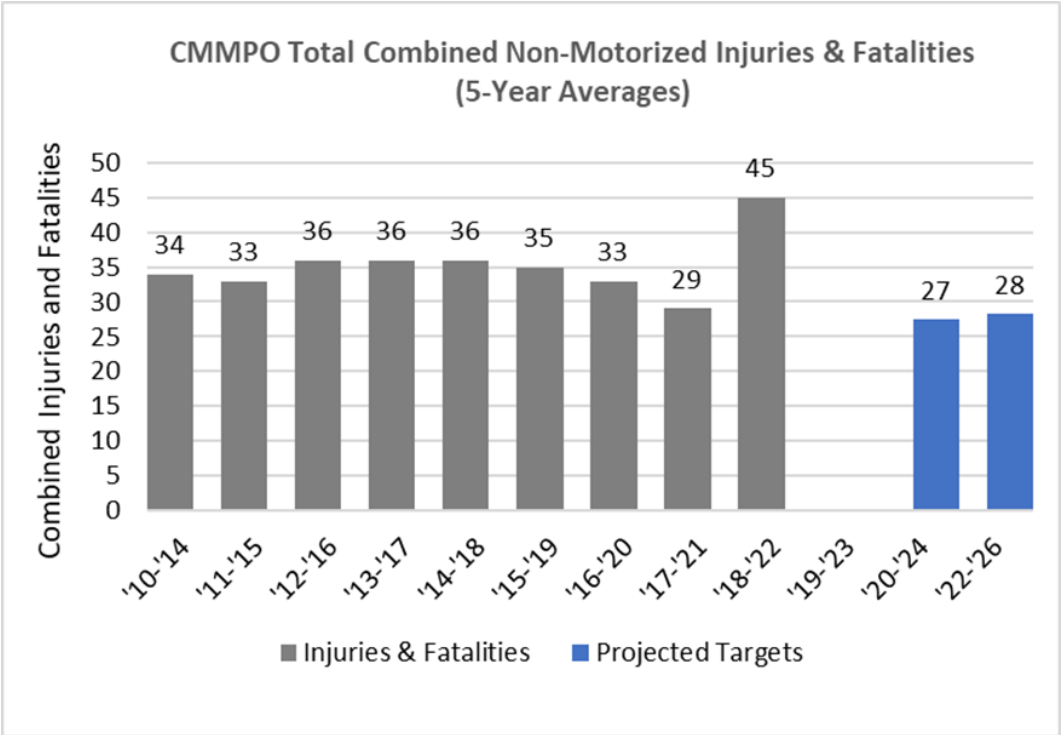


Figure 3

Total Combined Non-Motorized Injuries & Fatalities comparison between MassDOT and CMMPO





Bridge & Pavement Performance Measures (PM2)

The CMMPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide bridge and pavement performance measure targets set by MassDOT at their March 15, 2023 meeting. MassDOT was required to adopt a statewide target by December 16th, 2022. In setting these targets, MassDOT has followed FHWA guidelines by measuring bridges and pavement condition using the 9-point National Bridge Inventory Standards (NBIS); the International Roughness Index (IRI); the presence of pavement rutting; and the presence of pavement cracking. 2-year and 4-year targets were set for six individual performance measures: 1) percent of bridges in good condition; 2) percent of bridges in poor condition; 3) percent of Interstate pavement in good condition; 4) percent of Interstate pavement in poor condition; 5) percent of non-Interstate pavement in good condition; and 6) percent of non-Interstate pavement in poor condition. All the above performance measures are tracked in greater detail in MassDOT's 2022 Transportation Asset Management Plan[3] (TAMP).

Targets for bridge-related performance measures were determined by identifying which bridge projects are programmed and projecting at what rate bridge conditions deteriorate. The bridge-related performance measures measure the percentage of deck area, rather than the total number of bridges. There are numerous bridge projects programmed in the 2025 – 2029 TIP.

Performance targets for pavement-related performance measures were based on a single year of data collection, and thus were set to remain steady under the guidance of FHWA. These measures are to be revisited at the 2-year mark (2024), once three years of data are available, for more informed target setting.

MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker[4] using the Pavement Serviceability Index (PSI), which differs from IRI. These measures and targets are used in conjunction with federal measures to inform program sizing and project selection. Table 2 below shows the 2-year and 4-year targets and the 2021 condition for the Bridge & Pavement Performance Measures (PM2).

Table 2 – PM2 Measures & Targets

Performance Measure	2021 Condition	2-year target (2024)	4-year target (2026)
Bridges in good condition	16%	16%	16%
Bridges in poor condition	12.2%	12%	12%

[3] https://www.mass.gov/lists/massdot-asset-management
[4] MassDOT Annual Performance Management Tracker Reports

Performance Measure	2021 Condition	2-year target (2024)	4-year target (2026)
Interstate Pavement in good condition	71.8%	70%	70%
Interstate Pavement in poor condition	0.0%	2%	2%
Non-Interstate Pavement in good condition		30%	30%
Non-Interstate Pavement in poor condition		5%	5%

Reliability, Congestion, & Emissions Performance Measures (PM3)

The CMMPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide reliability, congestion, and emissions performance measure targets set by MassDOT at their March 15, 2023 meeting. MassDOT was required to adopt a statewide target by December 16, 2022, with MPOs either adopting the statewide target or establishing their own by June 2023.

MassDOT followed FHWA regulation in measuring Level of Travel Time Reliability (LOTTR) on both the Interstate and non-Interstate NHS as well as Truck Travel Time Reliability (TTTR) on the Interstate system using the National Performance Management Research Dataset (NPMRDS) provided by FHWA. These performance measures aim to identify the predictability of travel times on the roadway network by comparing the average travel time along a given segment against longer travel times. For LOTTR, the performance of all segments of the Interstate and of the non-Interstate NHS are defined as either reliable or unreliable based on a comparison between the 50th percentile travel time and the 80th percentile travel time, and the proportion of reliable segments is reported. For TTTR, the ratio between the 50th percentile travel time and the 90th percentile travel time for trucks only along the Interstate system is reported as a statewide measure. Table 3 compares the LOTTR and TTTR between Statewide and the CMMPO planning region from 2017 to 2021. The data is from the Probe Data Analytics Suite of the Regional Integrated Transportation Information System (RITIS) website.

Table 3 – CMMPO vs Statewide LOTTR & TTTR

Year	Statewide LOTTR		CMMPO LOTTR		Statewide Interstate TTTR	CMMPO Interstate TTTR
	Interstate %	Non-Interstate %	Interstate %	Non-Interstate %		
2017	70.4%	80.1%	89.7%	87.1%	1.81	1.71
2018	69.8%	80.4%	87.3%	89.6%	1.88	1.79
2019	69.1%	82.8%	84.6%	88.9%	1.84	1.77
2020*	94.4%	91.3%	99.1%	94.1%	1.44	1.22
2021	84.2%	87.9%	96.4%	92.9%	1.61	1.59
2022	78.4%	87.0%	95.9%	92.0%	1.71	1.61

2023	74.4%	86.1%	93.4%	93.5%	1.74	1.70

**COVID-19 pandemic occurred during 2020*

The CMMPO—an agency whose planning area includes communities in the Boston Urbanized Area (UZA), and as a signatory to the 2018 Boston UZA Memorandum of Understanding (Boston UZA MOU)—has also adopted 2-year (2024) and 4-year (2026) Boston UZA-wide congestion performance measure targets. These performance measures are the percentage of non-single occupancy vehicle (SOV) travel and the Peak Hour Excessive Delay (PHED). Targets were developed in coordination with state Departments of Transportation and neighboring MPOs with planning responsibility for portions of the Boston UZA.

The percentage of non-SOV travel is approximated using the U.S. Census Bureau's American Community Survey (ACS) Journey-to-Work data. This metric is based on the percentage of people commuting to work using a mode other than a single occupancy vehicle. In the Boston UZA, the proportion of non-SOV travel has been steadily increasing and is projected to continue increasing at a rate of 1.4% annually.

PHED is measured by totaling the number of hours spent in excessive delay (defined as travel time at 20 miles per hour or at 60% of the posted speed limit, whichever is greater) in peak hours (between 6:00am and 10:00am, and between 3:00pm and 7:00pm) divided by the total UZA population. For this reporting period, targets are proposed considering the uncertainty of the trend post-pandemic and follow a trendline approach similar to the TTR measures. In the Boston UZA, the 2024 target is set at a realistic 24, while the 2026 target of 22 is proposed to establish an improving target and one that is below pre-pandemic numbers.

The CMMPO—an agency whose planning area includes communities in the Worcester Urbanized Area (UZA), and as a signatory to the 2020 Worcester UZA Memorandum of Understanding (Worcester UZA MOU)—has also adopted 2-year (2024) and 4-year (2026) Worcester UZA-wide congestion performance measure targets. These performance measures are the percentage of non-single occupancy vehicle (SOV) travel and the Peak Hour Excessive Delay (PHED). Targets were developed in coordination with state Departments of Transportation and neighboring MPOs with planning responsibility for portions of the Worcester UZA.

The percentage of non-SOV travel is approximated using the U.S. Census Bureau's American Community Survey (ACS) Journey-to-Work data. This metric is based on the percentage of people commuting to work using a mode other than a single occupancy vehicle. In the Worcester UZA, the proportion of non-SOV travel has been steadily increasing and is projected to continue increasing at a rate of 0.09% annually.

In the Worcester UZA, the PHED 2024 target is proposed at 7 to account for uncertainty, while the 2026 target of 5 is proposed to establish an improving target and one that is below pre-pandemic numbers.

Emissions reduction targets are measured as the total of all emissions reductions anticipated through CMAQ-funded projects in non-attainment or air quality maintenance areas (currently the cities of Lowell, Springfield, Waltham, and Worcester, and the town of Oak Bluffs) identified in the Statewide Transportation Improvement Program (STIP). This anticipated emissions reduction is calculated using the existing CMAQ processes. Table 4 below shows the 2-year and 4-year targets and the 2021 current condition of the Reliability, Congestion, and Emissions Performance Measures (PM3).

Table 4 – PM3 Measures & Targets

Measure	Current (2021)	2-year (2023)	4-year (2025)
Interstate LOTTR	84.2%	74.0%	76.0%
Non-Interstate LOTTR	87.2%	85.0%	87.0%
TTTR	1.61	1.80	1.75
PHED (Boston UZA)	18.0	24.0	22.0
PHED (Springfield UZA)	6.2	6.5	6.0
PHED (Worcester UZA)	6.8	7.0	5.0
% non-SOV (Boston UZA)	36.9%	38.8%	39.8%
% non-SOV (Springfield UZA)	21.5%	22.2%	22.2%
% non-SOV (Worcester UZA)	23.4%	25.4%	26.1%
Emissions Reductions: PM2.5			
Emissions Reductions: NOx	0.490	0.000	0.000
Emissions Reductions: VOC	0.534	0.000	0.000
Emissions Reductions: PM10			
Emissions Reductions: CO	6.637	0.354	0.354

A new GHG performance measure for the percent change in tailpipe carbon dioxide (CO2) emissions on the National Highway System (NHS) compared to the reference year of CY 2022 was going to be required under PM3, but the U.S. District Court vacated the U.S. Department of Transportation rule, thus nullifying the new GHG measure at this time. The established targets were supposed to show declining tailpipe CO2 emissions on the NHS.

State DOTs would have been required to establish and report 2-year and 4-year targets for this measure. Additionally, MPOs would have also been required to establish 4-year targets for the GHG measure for their metropolitan planning area. In addition, when the boundaries of two or more metropolitan planning areas intersect any portion of the same urbanized area (UZA), the MPOs serving that UZA would have been required to establish a single joint 4-year target for the UZA.

Before the District Court ruling, MassDOT submitted their 2025 GHG target to FHWA on February 5, 2024. The MassDOT submitted target for the 2022-2025 performance period was 12.72 million metric tons CO2 equivalent (MMTCO2e), which represents a 7.9% reduction in NHS GHG emissions relative to the calendar year (CY) 2022 reference year, in which GHG emissions were 13.82 MMTCO2e. At its discretion, the CMMPO may choose to adopt their own GHG targets.

Table 5 contains the federally-required performance measures for transit in regards to safety and infrastructure condition.

TABLE 5: FEDERALLY-REQUIRED TRANSIT PERFORMANCE MEASURES

National Goal	Transit Performance Area / Asset Category	Performance Measure	MPO Goal Area
Safety	Fatalities Injuries Safety Events System Reliability	• Total # of reportable fatalities and rate per total vehicle revenue miles by mode • Total # of reportable injuries and rate per total vehicle revenue miles by mode • Total # of reportable events and rate per total vehicle revenue miles by mode • Mean distance between major mechanical failures by mode	Safety
Infrastructure Condition	Equipment Rolling Stock Infrastructure Facilities	• % of vehicles that have met or exceeded their Useful Life Benchmark (ULB) • % of revenue vehicles within a particular asset class that have met or exceeded their ULB • % of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model Scale	State of Good Repair

Transit Asset Condition

The CMMPO and Worcester Regional Transit Authority (WRTA) originally developed a Transit Asset Management Plan (TAM Plan) in October 2018. All transit agencies that own, operate, or manage capital assets used in the provision of public transportation and that receive federal financial assistance under 49 U.S.C. Chapter 53 - either as recipients or subrecipients - must develop a TAM Plan. A TAM Plan is a necessary tool that assists transit providers in:

1. Assessing the current condition of its capital assets
2. Determining what the condition and performance of its assets should be (if they are not already in a state of good repair)
3. Identifying the unacceptable risks, including safety risks, in continuing to use an asset that is not in a state of good repair

4. Deciding how to best balance and prioritize reasonably anticipated funds (revenues from all sources) towards improving asset condition and achieving a sufficient level of performance within those means
5. TAM Plans must include at a minimum an asset inventory, condition assessments of inventoried assets, and a prioritized list of investments to improve the state of good repair of their capital assets.

One provision of the TAM Plan is for transit agencies to work with MPOs to set performance targets for each four-year cycle. On an annual basis, the RTAs must submit an annual condition report of assets to the National Transit Database (NTD). RTAs must also set targets every four years for the performance of assets. Each asset category has its own performance measure by which to set targets:

- Rolling stock: % of revenue vehicles exceeding Useful Life Benchmark (ULB)
- Equipment: % of nonrevenue service vehicles exceeding ULB
- Facilities: % of facilities rated under 3.0 on the Transit Economic Requirements Model (TERM) scale

The WRTA updated its TAM Plan and the WRTA Advisory Board adopted the new plan on September 22, 2022. The WRTA's new TAM Plan covers the period beginning on October 1, 2022 and ending on September 20, 2026. The CMMPO concurred with the WRTA TAM Plan targets at their November 16, 2022 meeting. Table 6 shows the updated WRTA Asset Condition Performance Targets included in the TAM Plan.

Table 6 – WRTA TAM Plan Performance Targets

WRTA ASSET CONDITION PERFORMANCE TARGETS		
Category	Class	Performance Target
Rolling Stock	Buses >30'	100% of fleet meets or exceeds ULB of 12 years
	Short Buses <30'	100% of fleet meets or exceeds ULB of 10 years
	Vans (A,E,E2)	100% of fleet meets or exceeds ULB of 6 years
	Vans (LF)	100% of fleet meets or exceeds ULB of 7 years
Equipment	Support Vehicles	100% of fleet meets or exceeds ULB of 7 years
	Service Vehicles	100% of fleet meets or exceeds ULB of 10 years
Facilities	Admin/Maintenance Facility	0% of facilities rated under 3.0 on TERM scale
	Passenger/Parking Facility	0% of facilities rated under 3.0 on TERM scale

FTA defines ULB as "the expected lifecycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment." For example, FTA's default ULB value for a bus is 14 years. FTA's Transit Economic Requirements Model (TERM) scale, which pertains to the facilities measure, is a rating system that describes asset condition. The scale values are 1 (poor), 2 (marginal), 3 (adequate), 4 (good), and 5 (excellent). Because each measure is intended to represent the share of transit assets that are not in a state of good repair, the goal is to minimize the value for all four required measures.

Within the 2025-2029 Transit TIP, projects include the purchase of support vehicles and new electric buses (35'). By purchasing the new support vehicles and buses, the WRTA will maintain their rolling stock in excellent condition and meet the performance targets within the TAM Plan. Additionally, other projects in the transit TIP include the rehabilitation and renovation of both the bus terminal "Hub" and the maintenance facility which will help maintain the good to excellent conditions suggested by the current TAM Plan targets.

Public Transportation Agency Safety Plan (PTASP)

The FTA has adopted the principals and methods of Safety Management Systems (SMS) as the basis for enhancing the safety of public transportation in the United States. Each Public Transportation Agency Safety Plan (PTASP) will incorporate SMS principles and methods tailored to the size, complexity, and scope of the public transportation system and the environment in which it operates. Transit agencies were required to develop, certify, and implement an Agency Safety Plan by 12/31/20 while the CMMPO had up to 180-days after the Plan is certified to adopt the included targets. The WRTA PTASP was finalized and subsequently endorsed by the WRTA Advisory Board in November 2020 and later adopted by the CMMPO at their February 17, 2021 meeting. Since then, the WRTA has updated its PTASP with new targets and it was endorsed by the WRTA Advisory Board on April 20, 2023 and the CMMPO concurred with the new targets at their May 17, 2023 meeting. The Plan utilizes existing agency safety practices as well as identifies industry best practices to be implemented to meet the new regulation in 49 CFR Part 673 of the federal guidelines. The following seven (7) measures must be included in the PTASP:

1. Total number of injuries
2. Injury rate per total vehicle revenue miles
3. Total number of fatalities
4. Fatality rate per total vehicle revenue miles
5. Total number of safety events
6. Safety events rate per total vehicle revenue miles

7. System reliability mean distance between major mechanical failures

The below targets are based on a review of the previous five years (2018-2022) of the WRTA's safety performance data for both Fixed-Route and Demand Response transit services. Rates are calculated per 1,000,000 vehicle revenue miles. Table 7 shows the safety targets that were set for 2022. New targets will be updated annually based on 5-year rolling averages.

Table 7 - 2022 WRTA Safety Targets

Mode of Transit Service	Fatalities (Total)	Fatalities (Rate)	Injuries (Total)	Injuries (Rate)	Safety Events (Total)	Safety Events (Rate)	System Reliability (Miles between Failures)
Fixed Route	0	0	26	2.8	14	1.5	9,500
Demand Response	0	0	6	1.2	8	1.6	125,000

Similar to the WRTA's TAM Plan, new buses and support vehicle purchases included in the 2025-2029 Transit TIP is also anticipated to help reach the safety targets listed in the PTASP. The new buses and support vehicles replacing the older vehicles are expected to be more reliable and safer on the roadways. In addition, the purchasing of support equipment and associated capital maintenance items will assist in the repair of older vehicles. Further, the purchase of new bus shelters will help keep the transit riders safe while waiting for the bus.

CMMPO Regionally-Customized Performance Measures

In addition to the federally-required performance measures, the CMMPO has established regionally-customized measures for the region. These measures are based on a range of transportation planning emphasis areas that are not part of the federal PM1, PM2, or PM3 requirements. The planning areas addressed with regionally-customized measures are security, multimodality, sustainability, equity, economic, stormwater management, travel & tourism, and climate change & clean energy. Although some measures are only used in the project scoring criteria, the following summarizes those measures currently used by the CMMPO:

- Condition of Sidewalks
- Condition of ADA Ramps
- Miles of Bicycle Lanes
- WRTA Ridership

- Jobs to housing ratio
- Percent of EJ & Vulnerable Populations Intersecting WRTA Fixed Route Service
- Percent of CMMPO Subregion Costs Per Capita that Benefit from a TIP Project to Provide Equal Opportunity to All Communities
- Accessibility to Jobs
- Culvert Assessments
- Expansion of Electric Vehicle (EV) chargers

Annual System Performance reports have been produced since 2016. The results of the above listed regionally-customized performance measures are included in the reports along with the federally-required performance measures. The reports can be found on the CMRPC Performance Management website page.

Performance and Project Selection

The CMMPO's selection of projects for the TIP has evolved into a collaborative process involving both the CMMPO's Advisory Committee and the CMRPC Transportation Planning Committee. The overall intent is to select projects that will advance the region towards both the federal and regionally-customized targets adopted by the CMMPO. As such, the CMMPO uses a TIP Project Screening Scoresheet (shown in Section 6) to inform the transportation investment decision making process within the PBPP framework. The TIP Project Screening Scoresheet includes a checklist for assessing how a certain project might potentially meet the established targets. Each candidate project eligible for TIP programming is analyzed and subsequently scored by the CMMPO staff working with both the committees.

5.) Regional Target Project Relationship to Regional Planning Efforts & Performance Management

This section contains regional target project information regarding their relationship to regional planning efforts and performance measures as well as other regional goals. As other state, regional, or local plans reflect the TIP projects, it indicates that the selected projects are considered a priority on all levels. Table 8 lists a number of these planning efforts and plans associated with the TIP target projects. Some of the categories include regional or state modal plans, corridor studies, MPO technical assistance, and any other associated plans. In addition to the listing of related studies and plans, the table also includes the relationship to the federally-required and regionally-customized performance measures. Numerous anticipated performance measure improvements are listed for each project as they pertain to both the federal and regional targets.

CMMPO Long Range Transportation Plan

Table 8 also includes a column for the CMMPO LRTP and whether the TIP target projects are reflected in the document. Further, it is also noted in this column which LRTP program area the project is included. The five program areas included in the LRTP are 1) System Management & Operations (SMO), 2) Active Transportation (AT), Climate Change & Resiliency (CCR), 4) Transit Support (TS), and 5) Major Infrastructure (MI). As shown in the table, all projects are contained within the LRTP and have been assigned a program area.

Table 8: Regional Target Projects' Relationship to Regional Planning Efforts and Performance Management

TIP Year	Project Description	Plans in Which Project is Included					Project's Relationship to Performance Measures / Other Regional Goals
		*Long Range Transportation Plan**	*Regional or State Modal Plan*	*Corridor Study*	*MPO Technical Assistance*	*Other (Please Specify)*	
Year	*Project description, as programmed in the TIP*	*Yes/No*	*Specify the specific plan here*	*Specify the Corridor Study*	*Specify if the project resulted from a technical assistance request*	*Specify the specific plan here (e.g. local Master Plan, CEDS, etc.)*	• *Please describe, in bullet point format, how the project advances regional and/or state performance measures* • *Use this space for any other notes on connections between the project and regional planning efforts*
2022 - 2025	CHARLTON-OXFORD – RECONSTRUCTION ON ROUTE 20, FROM RICHARDSON'S CORNER EASTERLY TO ROUTE 12, INCLUDES REHAB OF C-06-023 & REPLACEMENT OF O-06-002	Yes (MI)	Regional Safety Plan, CMRPC Bicycle Plan, CMP	Route 20 Corridor Profile in Auburn/Oxford		MassDOT EIR process and resulting design, MVP, Central 13 Prioritization Study	• Contains an HSIP intersection, project will improve safety. • Project also improving pavement, bridges, congestion, and bike and pedestrian infrastructure. • CMAQ approved.
2025	WORCESTER – PURCHASE OF NEW BIKE RACKS.	Yes (AT)			CMMPO staff assisted with bike rack inventory in the City	Worcester's Green Worcester Plan & Mobility Action Plan	• Improve & increase bicycle infrastructure. • Reduce emissions (CMAQ approved) from mode shift.
2025	SOUTHBRIDGE – INTERSECTION IMPROVEMENTS AT CENTRAL STREET, FOSTER STREET, HOOK STREET, AND HAMILTON STREET	Yes (AT)	CMMPO Regional Safety Plan, CMMPO Asset Management Report, CMP			Central 13 Prioritization Study	• Improve bike and pedestrian infrastructure, Including segment of Quinebaug River Rail Trail. • Emissions reduction (CMAQ approved). • REJ+ population within project limits. • Improve mobility and access to transit.
2025	WORCESTER – INTERSECTION IMPROVEMENTS ON CHANDLER STREET AND MAY STREET	Yes (SMO)	CMMPO Regional Safety Plan, CMMPO Bicycle Plan, CMP				• Improve bike and pedestrian infrastructure. • Improve safety, congestion, and pavement (adjacent Worcester State University). • REJ+ population within project limits. • Improve access to transit.
2025	WEST BROOKFIELD – RESURFACING & RELATED WORK ON ROUTE 9, FROM 850' WEST OF WELCOME ROAD TO PIERCE ROAD (1 MILE – PHASE 2)	Yes (MI)	CMMPO Bicycle Plan		TIP Project Status Meeting	MVP	• Improve stormwater and pavement. • Travel & Tourism enhancements. • Provide interregional connectivity.

*LRTP Programs – System Maintenance & Operations (SMO), Active Transportation (AT), Climate Change & Resiliency (CCR), Transit Support (TS), and Major Infrastructure (MI)

2026	WORCESTER – PEDESTRIAN & BICYCLE IMPROVEMENTS ON PLEASANT STREET	Yes (AT)	CMMPO Regional Bicycle Plan				• Improve bike and pedestrian infrastructure. • Improve access to transit. • Improve safety. • Emissions reduction, CMAQ potential.
2026	UPTON – CULVERT REPLACEMENT, MILFORD STREET (ROUTE 140) OVER UNNAMED TRIBUTARY TO CENTER BROOK	Yes (CCR)				MVP, Blackstone Valley Prioritization Study	• Improve stormwater, culverts.
2026	STURBRIDGE – ROUNDABOUT CONSTRUCTION AT THE INTERSECTION OF ROUTE 20 AND ROUTE 131	Yes (SMO)	CMMPO Bicycle Plan, CMMPO Asset Management Report, CMP	Route 20 Corridor Profile	TIP Development Meeting	Sturbridge Commercial Tourist District Plan, MVP	• Improve congestion, CMAQ potential. • Improve safety and pavement. • Improve bike and pedestrian infrastructure. • Travel & Tourism mobility enhancements.
2027	WORCESTER – INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM MAIN STREET TO QUEEN STREET	Yes (SMO)	CMMPO Regional Safety Plan, CMRPC Bicycle Plan		Provided Traffic Data and Growth Rate Information	Central 13 Prioritization Study	• Improve bike and pedestrian infrastructure. • Improve safety, multiple HSIP crash clusters. • Improve congestion and pavement. • REJ+ population within project limits. • Improve access to transit and potential transit signal priority corridor.
2027	WORCESTER – INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM QUEEN STREET TO PARK AVENUE	Yes (SMO)	CMMPO Regional Safety Plan, CMRPC Bicycle Plan		Provided Traffic Data and Growth Rate Information	Central 13 Prioritization Study	• Improve bike and pedestrian infrastructure. • Improve safety, multiple HSIP crash clusters. • Improve congestion and pavement. • REJ+ population within project limits. • Improve access to transit and potential transit signal priority corridor.
2027	NORTHBRIDGE – INTERSECTION IMPROVEMENTS AT ROUTE 122 (PROVIDENCE ROAD), SCHOOL STREET, SUTTON STREET, AND UPTON STREET	Yes (SMO)	CMMPO Regional Safety Plan, CMRPC Bicycle Plan, CMMPO Asset Management Plan		TIP Development Meeting, Traffic Growth Rate Request	MVP, Blackstone Valley Prioritization Study	• Improve safety, HSIP eligible intersection. • Improve bike and pedestrian infrastructure.
2027	UXBRIDGE – REHABILITATION OF ROUTE 16 (DOUGLAS STREET), FROM TAFT HILL ROAD TO 200 FT WEST OF MAIN STREET	Yes (AT)	CMMPO Bicycle & Pedestrian Plans			Blackstone Valley Prioritization Study	• Improve bike and pedestrian infrastructure. • Improve stormwater and pavement
2028	OXFORD – ROADWAY REHABILITATION ON ROUTE 12 (MAIN STREET)	Yes (AT)	CMMPO Bicycle & Pedestrian Plans				• Implementation of Complete Streets elements. • Improve ADA compliant ramps and sidewalks. • Create new bus transit stop. • Improve pavement, markings, and signage. • Improve drainage system. • Improve Main St/Charlton Rd/Sutton Ave intersection. • REJ+ population within project limits.
2028	SPENCER – INTERSECTION IMPROVEMENTS AT ROUTE 9 AND ROUTE 49	Yes (SMO)	CMMPO Bicycle Plan	Route 9 West Corridor Profile			• Create new bike and pedestrian infrastructure. • Improve drainage system. • Improve driver safety.

*LRTP Programs – System Maintenance & Operations (SMO), Active Transportation (AT), Climate Change & Resiliency (CCR), Transit Support (TS), and Major Infrastructure (MI)

							• Improve pavement, curbs, marking, and signage. • Improve traffic operations with new modern roundabout.
2028	RUTLAND – INTERSECTION IMPROVEMENTS AT ROUTE 122 AND PLEASANTDALE ROAD.	Yes (SMO)	CMMPO Bicycle Plan, Previous HSIP intersection				• Improve safety with potential modern roundabout. • Increase bike lane mileage.
2029	WEST BROOKFIELD – RESURFACING & RELATED WORK ON ROUTE 9 (PHASE III).	Yes (SMO)	CMMPO Bicycle Plan			MVP	• Improve safety and pavement. • Emissions reduction, potential CMAQ. • New sidewalks & ADA ramps. • Increase bike lane mileage. • Project within REJ+ community. • Stormwater improvements.
2029	WESTBOROUGH – ROADWAY IMPROVEMENTS ON ROUTE 30 (EAST MAIN STREET), FROM HASTINGS ELEMENTARY TO THOMAS NEWTON DRIVE.	Yes (AT)	CMMPO Bicycle Plan				• Improve safety and pavement. • Potential intersection improvements. • Bicycle and pedestrian improvements. • Project within REJ+ community.
2029	WORCESTER – INTERSECTION IMPROVEMENTS AT LAKE AVENUE AND BIGELOW DAVIS PARKWAY.	Yes (SMO)	CMMPO Bicycle Plan, CMMPO Regional Safety Report				• HSIP intersection, project will improve safety. • Intersection improvements, new traffic signal or roundabout. • Emissions reduction, potential CMAQ. • Bike and pedestrian improvements. • Project within REJ+ community. • Improve access to recreational area.

*LRTP Programs – System Maintenance & Operations (SMO), Active Transportation (AT), Climate Change & Resiliency (CCR), Transit Support (TS), and Major Infrastructure (MI)

6.) Project Scoring & Selection

Introduction

The CMMPO, by endorsing the 2025-2029 TIP, agrees that the inclusion of projects in FFY 2025 (first year of the TIP) is sufficient for project selection purposes as allowed by US DOT. Any project listed within FFY 2025 can proceed with programming during FFY 2025 without any additional action on the part of the CMMPO. The projects included in the TIP were selected through the region's ongoing federal "3C" Transportation Planning Process with full consideration of the principles of EJ, LEP, and Title VI.

Overview

Before projects are considered for programming on the TIP, they must first be reviewed and deemed eligible by MassDOT's Project Review Committee (PRC). Once approved and assigned a project number, a given federal-aid eligible project can be considered as a candidate for potential programming on the TIP. A range of criteria based on federal planning emphasis areas are considered by the CMMPO when selecting projects for TIP programming. This section provides further detail concerning the criteria used by the CMMPO. Primarily, consistency with the priorities of the LRTP is most important. The LRTP encompasses the region's entire multimodal transportation network so that a range of improvement projects and initiatives can be implemented through the detailed and lengthy TIP development process. The current goals, objectives, measures, and targets of the region's Performance Management-based planning process are detailed in the LRTP.

Included in the Unified Planning Work Program (UPWP), the Management Systems maintained by the CMMPO staff include Congestion, Pavement, Safety and MassDOT Bridge data. The data from each of these Management Systems serve as the measures for the region's Performance Targets under the CMMPO's Performance Management-based approach to transportation planning and programming. Performance Management-based planning highlights the type of improvement projects that will likely provide the best return on investment as well as maintain the CMMPO in alignment with national goals and targets.

Further, projects selected for TIP programming follow the vision and goals of the Statewide Modal Plans. It is the goal of the state's Bicycle and Pedestrian Plans to increase the safety of the users while encouraging more use of bicycles and a greater frequency of pedestrians walking for short trips. As for the State Rail Plan, projects for this mode are not programmed within the CMMPO TIP. However, the State Freight Plan's goals of improving safety, infrastructure condition, mobility & reliability, and equity can be attained with highway projects that improve safety and create better travel time reliability for both people and goods moving through and within the region.

Project Scoring Criteria Summary

This section includes the Performance Management criteria used by the CMMPO in the scoring of both new and currently programmed TIP projects. Performance-based planning is a major deciding factor for project programming and is a practice where targets and goals must meet regional objectives while also aligning with statewide and national objectives. As it continues to evolve, the CMMPO has fully incorporated Performance Measures into the TIP development process.

Accordingly, the CMMPO staff participates in MassDOT's Performance Management Subcommittee. The Subcommittee, which meets on an as-needed basis, leads the statewide cooperative effort for the sharing of performance data, selection of performance targets, and the reporting and tracking of performance targets as required under FHWA's Performance Management regulations. At the regional level, those projects with the best potential to improve key performance aspects of the multimodal & intermodal transportation network are considered for TIP inclusion.

All regional funding target projects considered for programming in the 2025 – 2029 TIP were scored using the CMMPO's Performance Management-based goals, objectives, measures, and targets. As goals and targets evolve and improved data becomes available, the scoring criteria has, and will, continue to be refined. However, during the 2025 – 2029 TIP's development effort, there were no changes made to the project scoring criteria.

Project scoring is especially important for those federal-aid eligible projects that are not yet programmed on the TIP. After staff scores the new potential projects, the results are then discussed at the CMMPO Advisory Committee and the CMRPC Transportation Committee meetings. The proponents for the new TIP candidate projects were invited to an Advisory Committee meeting to directly participate in the project scoring review. The CMMPO Advisory Committee membership consists of a diverse mix of individuals with broad expertise representing several regional stakeholders. The Transportation Committee is comprised of CMRPC delegates and technical members from communities in each of the transportation planning subregions. During these meetings, the criteria and the corresponding scores are summarized and discussed. Based on project scorings, project "tiering" recommendations are suggested to the CMMPO by both committees as to which new projects should be prioritized.

As its scoring criteria, staff uses the Performance Measures to address the federal transportation planning emphasis areas of safety, security, state of good repair, congestion, multi-modality, GHG/sustainability, equity, economic vitality, resiliency, and travel/tourism. The current criteria are summarized below and are followed by Table 9 that shows the scores of each project.

- **Safety**: This category is based on whether the project will reduce crashes and whether the project roadway has an identified HSIP crash cluster.
- **State of Good Repair**: This category is based on whether the project will improve roadway pavement, especially pavement that is currently in poor condition. Further criteria include whether the project is rehabilitating or replacing one or more bridges.
- **Congestion**: This category has multiple criteria. It includes whether the project is improving an existing intersection or installing a new signal, roundabout or adding ITS components. Other criteria include whether the project roadway is considered unreliable and if a project is eligible for CMAQ funding to help reduce emissions. The last two criteria are whether the project is along a primary freight route and reducing delays to freight movement.
- **Security**: This category is based on whether the project roadway is considered a primary evacuation route and if the project roadway is listed in the host community's Hazard Mitigation Plan or Municipal Vulnerability Preparedness Plan.
- **Multimodality**: This category also has multiple criteria. It includes whether a project is improving or building new sidewalks and/or ADA ramps. Other criteria include whether the project is increasing bicycle lane mileage or related infrastructure and if the project is improving accessibility to fixed-route public transit service. The last of the criteria is whether the project roadway is included in the host community's Complete Streets approved prioritization plan.
- **Sustainability**: This category is for projects within a designated Priority Development Area (PDA) and if a project includes extensive environmental mitigation work.
- **Equity**: This category is based on whether the project is within an identified REJ+ community and if the project is within a community that is below the average per capita of distributed TIP target funds.
- **Economic**: This category is based on whether the project improves mobility in an area that is losing access to jobs. The criteria analyze the 45-minute travel time difference between 2:00 AM and 8:00 AM. This data reflects the number of jobs lost because of recurring congestion.
- **Stormwater Management**: This category is based on whether the project is improving stormwater infrastructure such as drainage or culverts and if the project is within an identified 100 or 500-year flood zone.
- **Travel & Tourism**: This category is based on whether the project is improving mobility to/from a significant tourist attraction or recreational area.

Regional Performance Measures
TIP Project Scoring Criteria

	OBJECTIVE	TARGET/MEASURE	Scoring
SAFETY	**(PM1)** Reduce Number and Rate of Fatal and Serious Injury Crashes in the Region. Move towards Zero Deaths.	Reduction of Fatalities, Fatality Rates, Serious Injuries, Serious Injury Rates, and Non-Motorized Fatalities & Serious Injuries based on 5-year Rolling Averages.	X - project will help reduce all types of crashes X - project roadway has an identifed HSIP crash cluster
STATE OF GOOD REPAIR	**(PM2)** Maintain the Highway Infrastructure Asset System in a State of Good Repair	Increase % of Non-Interstate & Interstate NHS Pavement in Good Condition and Decrease % of Non-Interstate & Interstate NHS Pavement in Poor Condition	X - project is improving roadway pavement **(or)** XX - project is improving roadway pavement in poor condition
		Increase % of Bridges by Deck Area in Good Condition & Reduce % of Bridges by Deck Area in Poor Condition	X - project is rehabilitating or replacing a bridge **(or)** XX - project is rehabilitating or replacing multiple bridges
CONGESTION	**(PM3)** Achieve a Significant Reduction in Congestion on the National Highway System	Increase Travel Time Reliability, % of Non-Single Occupancy Vehicle (SOV) Travel, and Reduce Peak Hour Excessive Delay (PHED)	X - project is improving an existing signalized intersection, installing new signalized control or roundabout, or adding ITS components X - project roadway is considered unreliable
		Reduce On-Road Mobile Source Emmissions	X - project is potentially eligible for CMAQ funding (reduce emissions)
		Improve Truck Travel Time Reliability on both Interstate and Non-Interstate NHS	X - project is along an established primary freight route **(or)** XX - project is on a primary freight route and reducing average freight delay
SECURITY	Enhance the Transportation Security Coordination and Preparedness Regionwide	Evacuation Routes Established as Primary; Vulnerable roadway specified within Hazard Mitigation/MVP Plan	X - project roadway is a primary established evacuation route X - project roadway is listed in the town's Hazard Mitigation Plan as a potential hazardous location
MULTIMODALITY	Improve and/or Expand Transportation Accessibility for all Modes (Bicycle, Pedestrian, Transit) in the Region	Increase # of ADA-Compliant Ramps and Reduce Mileage of Sidewalks in Poor Condition	X - project is improving existing sidewalks or building new sideawalks X - project is improving existing ADA ramps or building new ADA ramps
		Increase Bike Lane Mileage and Infrastructure; Improve accessibility to Bus Routes	X - project is increasing bike lane mileage and infrastructure X - project is improving accessibility to fixed route transit
	Increase the Number of Communities with Complete Streets Policies	Incorporate Complete Streets Prioritaztion Plan Roadways into TIP Projects	X - the project roadway is included in the community's approved prioritization plan
SUSTAINABILITY	Combat sprawl and its effects	Project provides opportunities to avoid, minimize, or mitigate environmental effects in a PDA area	X - project is within a PDA area X - project includes extensive environmental mitigation work
EQUITY	Assure that Improvements are Fairly Distributed among Populations, Towns and Subregions	Equitable TIP Project Distribution; Increase Percent of EJ and Vulnerable Population that can Access Transit Service	X - project is within an identified REJ+ community X - project is within a community that is below the average per capita of distributed TIP target funds.
ECONOMIC	Make Employment Opportunities Accessible and Available Allowing for Job Expansion and Reducing Transportation Costs	Improving the accessibility to jobs in the CMMPO region.	X - project improves mobility in an area that is losing jobs access between 33rd and 66th percentile of other areas in the region **(or)** XX - project improves mobility in an area that is losing jobs access greater than 66th percentile of other areas in the region
STORMWATER MGMT	Create a Transportation Network that is Resilient to the Impacts of Stormwater	Consider Nature-Based Solutions for Stormwater Management; Improve Drainage or Replace/Retrofit Culverts that have either Moderate, Significant, or Severe Barriers	X - project is improving stormwater infrastructure (i.e. - drainage, culverts) **(or)** XX - project is improving stormwater infrastructure within a identified 100 or 500 year flood zone
TRAVEL & TOURISM	Enhance region's travel and tourism opportunities	To improve traveler access, mobility and linkages to sites of touristic value and balance the travel demand needs of area residents and visitors	X - project is improving the mobility to/from these tourist attractions/recreational areas

Each X = 1pt (max total of 27)

For the PM scoring that has a choice of either "X" or "XX", only one of the two choices can be chosen for up to a total of 2pts

TABLE 9
CMMPO PERFORMANCE MANAGEMENT ASSESSMENT FOR 2025-2029 TARGET PROJECTS*

Highest possible score is 27

Prog Year**	Proj ID#	Project	Sub-Region***	Safety	State of Good Repair	Congestion	Security	Multimodality	Sustainability	Equity	Economic	Stormwater	Travel & Tourism	TOTAL SCORE
23-25	602659	Oxford/Charlton-Route 20	SW	2	3	5	2	4	2	1	1	2	0	**22**
2027	608990	Worcester - Chandler St (Phase I)	C	2	2	4	2	4	1	2	2	0	0	**19**
2027	612011	Worcester - Chandler St (Phase II)	C	2	1	4	2	4	1	2	2	0	0	**18**
2027	609441	Northbridge - 122/Sutton/School	SE	2	1	2	2	5	1	2	2	0	0	**17**
2029	612779	West Brookfield - Route 9 (Phase III)	W	1	1	2	2	4	2	1	0	2	0	**15**
2029	613242	Westborough - Route 30 Improve	NE	1	2	4	2	4	0	2	0	0	0	**15**
2029	613648	Worcester - Lake Ave/Bigelow Davis	C	2	2	2	0	4	0	2	2	0	2	**15**
2028	611988	Oxford - Route 12 (Main St) Rehab	SW	1	1	4	1	5	0	1	1	1	0	**15**
2028	613097	Spencer - Rt 9 & Rt 49 Int Improv	W	1	2	4	1	5	1	0	0	1	0	**15**
2026	611933	Sturbridge - R 20/131 Roundabout	SW	1	2	5	1	3	0	1	0	0	1	**15**
2025	608778	Southbridge - Downtown Improv	SW	2	1	3	0	4	1	2	1	0	1	**15**
2025	608961	Worcester - Chandler/May Sts	C	2	1	4	1	2	0	2	2	0	0	**15**
2027	610931	Uxbridge - Route 16 Rehab	SE	1	2	2	1	4	1	0	1	1	0	**13**
2025	609049	West Brookfield - Route 9 (Phase II)	W	1	1	1	2	2	1	0	0	2	1	**11**
2026	610535	Worcester - Pleasant St	C	1	0	2	1	4	0	2	1	0	0	**11**
2026	608456	Upton - Culvert Replacement	SE	0	1	1	1	0	2	0	2	2	0	**9**
2028	613655	Rutland - Route 122/Pleasantdale Rc	N	1	1	2	1	1	1	1	0	0	0	**8**

* Includes all ranked projects considered for programming.

** "NP" means that the project is not currently programmed.

*** Each of the 40 CMMPO communities are assigned to a subregion; C = Central, N = North, NE = Northeast, SE = Southeast, SW = Southwest, and W = West.

Project Selection Information

TIP project priorities, as recommended by the CMMPO Advisory Committee, allow for the selection of projects that can most effectively and efficiently utilize the defined federal-aid target funding available to the region to improve system performance while maintaining financial constraint. These priorities are derived from the ongoing public outreach efforts conducted by the CMMPO and brought forth by both the CMMPO Advisory Committee and the WRTA's Advisory Board. Justification is often supported by various planning studies, completed either by staff or hired consultants, which provide both quantitative and qualitative data. The following is a summary of the additional information used in the selection and programming of projects.

- **Regional Equity**: All communities within the CMMPO region are provided with an equal opportunity to be included in the annual TIP development process. Staff strongly consider communities that have had zero or very few programmed projects over time as well as the total amount of federal funds allocated towards their recent projects.
- **Long Range Transportation Plan (LRTP):** The scope of the LRTP encompasses the region's entire multimodal transportation network. Projects included in the CMMPO TIP are consistent with LRTP priorities. Revised every four years, the most recent LRTP was endorsed by the CMMPO on July 19, 2023, received federal approval, and is now in effect. Notably, an extensive, targeted public outreach process accompanied the development of the LRTP. Reflective of the LRTP, this TIP includes improvement projects that are intended to meet established Performance Targets that reduce congestion, improve pavement, and reduce vehicle crashes as well as support modal shift to healthy options such as public transit, bicycling and walking.

  A range of listed transportation project needs are included in the comprehensive LRTP to be eligible for eventual inclusion in the TIP project listings. The LRTP provides an overview of both the existing and future projected condition of all major modes of transportation in the region, including intermodal activities. This allowed for the compilation of a listing of identified needs for all transportation modes in the planning region.

  When developing the LRTP, the CMMPO established "Five Programs" to better address the region's identified transportation needs. In consideration of financial constraint, it is imperative to prioritize potential investments and scrutinize eligible projects based on their ability to advance both the state's and the region's goals. The Five Programs and expected financial percentages for target projects are 1) System Maintenance & Operations (38%), 2) Transit Support (5%), 3) Active Transportation (30%), 4) Climate Change & Resiliency (12%), and 5) Major Infrastructure (15%). Based on the previously

shown Regional Target Projects Relationship table, the federal-aid target projects programmed in the 2025-2029 TIP were assigned to one of the five LRTP-established program areas. The results showed that 53% of target funds were used in System Maintenance & Operations, 0% of the funds in Transit Support, 36% in Active Transportation, 1% in Climate Change & Resiliency, and 10% in Major Infrastructure.

- **Environmental Consultation**: An annual effort, staff engages the environmental community and other stakeholders in discussions regarding key areas of environmental concern associated with the TIP program, focusing on avoiding, minimizing, and mitigating potential adverse impacts. Staff continue to consider existing conservation, economic, historic and land use plans when projects are being screened for TIP programming. Previously established GIS-based "Environmental Profile" maps are used to provide an analytical aspect to both the environmental advantages and challenges present in the planning region. There are five map layers commonly used. These layers are DEP (wetlands), DCR (land use), NHESP (vernal pools & rare species habitats), flood zones, and vulnerable culverts.

  As part of the initiation process for new projects, MassDOT's MaPIT allows authorized users to specify anticipated project limits to analyze the project area using various data layers, including environmental. This data helps to identify any concerns or deficiencies within the project area prior to beginning the design process.

- **Management Systems:** Materials available through the Management Systems maintained by the CMMPO planning staff and MassDOT are used to measure anticipated improvements from projects selected for the TIP programming:

  - ***Congestion Management Process (CMP) -*** The regional CMP monitors key roadway segments, critical intersections, identified bottlenecks, and MassDOT-maintained Park and Ride facilities. Projects programmed on the TIP are often affirmed through this process. Since its inception, the support of the CMP has led to the programming of a significant number of projects funded and implemented through the TIP.
  - ***Pavement -*** MassDOT oversees the condition and repair needs of the state-maintained network of highways. The regional staff offers pavement services and assistance to member communities for town-maintained state numbered routes and locally-maintained roadways.
  - ***Safety -*** Data is maintained by MassDOT and supported by vehicle crash report information compiled from various statewide sources. For the state's ongoing Highway Safety Improvement Program (HSIP), a "Top 200 Crash Location" listing is compiled and provided to each planning region. Staff consider these top crash

locations for HSIP funding on the TIP. Notably, the CMMPO staff regularly participates in Road Safety Audits (RSA) held throughout the region.

- ***Bridge -*** This information is maintained by MassDOT-Boston and supported by bridge inspection reports compiled by the five MassDOT District offices. Structurally Deficient (SD) bridges are highlighted within the bridge listing provided to the regions. MassDOT prioritizes identified "SD" structures in need of attention on a statewide basis, seeking programming in the regional TIPs.

Other related activities include:

- ***Transit Planning -*** Staff works closely with the WRTA to identify capital and operations needs for both fixed-route transit and complimentary paratransit services. The WRTA Advisory Board oversees this process. Statewide guidance concerning transit documentation is often provided by MassDOT OTP based on FTA regulation.
- ***Freight Planning –*** MassDOT's State Rail Plan and State Freight Plan identified several freight-related issues and priorities. Regional staff are often requested to assist in such efforts, having forged relationships with several local freight transportation providers and intermodal facility operators. A regional *Freight Planning Progress Report* is compiled on a periodic basis.
- ***Traffic Monitoring -*** A comprehensive annual traffic count program is conducted by the planning staff. The regional count program is supplemented by traffic volume data collected by MassDOT on the Interstate System and other major roadways.

- **Travel Time Reliability**: Included in federally-required PM3, a Level of Travel Time Reliability (LOTTR) is calculated to determine the reliability of highway segments on the Interstate and non-Interstate National Highway System (NHS). Data is available on the RITIS platform and can be analyzed either statewide or regionally. RITIS data shows whether a roadway segment is reliable or unreliable. Identified unreliable segments could be considered candidates for potential TIP projects. (This data is used within the project scoring criteria that was previously discussed.)

- **Corridor Profiles:** Included in the UPWP, staff has completed a series of "Corridor Profile" efforts, streamlined studies that combine the results of the ongoing Management Systems and the utilization of regional travel demand modeling to develop future traffic volume projections. These studies result in the compilation of a comprehensive listing of improvement options to be considered by the host communities. In turn, several communities have sought TIP programming to implement the improvements suggested in their respective Corridor Profile studies.

- **Reliability of TIP Project Delivery:** MassDOT OTP and MassDOT Highway Division continue efforts to improve project delivery within the STIP. The CMMPO staff assists MassDOT in contacting project proponents and consultants, seeking current design status or other pertinent information. Also, if necessary, staff can facilitate virtual or in-person meetings to discuss project design, environmental or right-of-way concerns.
- **Ladders of Opportunity:** Access to essential services. As part of the TIP development process, candidate projects that address identified transportation connectivity gaps in access to essential services are, as applicable, considered by the CMMPO. Essential services include housing, employment, health care, schools/education, and recreation.
- **TIP Micro-Projects Program:** As mentioned above, the CMMPO uses the established Five Programs in the LRTP to address the region's transportation needs. In addition to using TIP funds for traditional projects such as roadway or intersection improvements, another approach currently being pursued is the further development of the "Micro-Projects" Program that enables the flexible use of regional federal-aid target funding for other "non-traditional" projects.

  A Micro-Project is a low-cost transportation improvement project that is aligned with the CMMPO's goals and objectives as outlined in the LRTP. These projects address regional, sub-regional or local priorities. They are envisioned to support congestion relief efforts, address connectivity gaps as well as first-last mile connections while reducing emissions. Micro-Projects present an opportunity to maximize the impact in our region's communities and distribute the benefits of transportation projects equitably in the region. The CMMPO has set-aside $400,000 in the 2026, 2027, 2028, and 2029 TIP years for these types of projects. These funds can be used for capital purchases. Project proponents must cover installation, maintenance, and administration costs.

  In terms of the types of projects that are eligible under this program for capital purchases are bikesharing stations and bikes, bicycle parking and shelters, transit signal priority (TSP), and low/no emission vehicle acquisitions. All these projects need to demonstrate a strong public benefit including reducing emissions. The Micro-Projects Program is funded with federal CMAQ funds. As such, all projects must demonstrate a benefit to the air quality in the Central Massachusetts region and meet other federal requirements. The program will only cover 80 percent of the project's capital or operating costs. Proponents should anticipate providing a 20 percent local match.

  For FFY 2025, there was one (1) project submitted through the program. The submitted project has been CMAQ approved and programmed in FFY 2025 of the 2025 – 2029 TIP. Below are some details of the two project submittals.

- **City of Worcester**: Requested $35,000 for the purchase of new bike racks which includes ten (10) 4-Hoop Racks on Rails & Delineators, 42 New Post & Hitch Racks, and 30 Post & Hitch Meter Retrofit Racks.

- **TIP Project Design Funding:** Starting in the 2025-2029 TIP, if funding is available, a maximum of $1 Million will be reserved each federal fiscal year for project design. Design funding is eligible through the TIP and federal funds would cover 80% while the municipality would need to pay the remaining 20%. The municipality would also need to enter into a reimbursable contract with MassDOT. Further, the design funds would only be available for projects that have been approved by MassDOT's Project Review Committee (PRC) and have yet to hire a design firm. The design funding would be a competitive program and candidates will be ranked by staff using the TIP's current scoring procedure used for ranking construction projects. Staff intends to finalize the CMMPO TIP design funding program guidance and accompanying application form during Summer 2024 to be forwarded to the communities during Fall 2024 prior to the start of the development of the 2026-2030 TIP.

7.) Summary of Transportation Funding Programs

Congestion Mitigation and Air Quality Improvement Program (CMAQ): These funds are directed towards transportation projects and programs which reduce transportation-related emissions. These funds are to assist areas designated as nonattainment and maintenance under the Clean Air Act Amendments of 1990. These projects will contribute to meeting the attainment of National Ambient Air Quality Standards (NAAQS). Funding is 80% federal and 20% state.

Interstate Maintenance (IM): Resurfacing, restoration and rehabilitation are eligible activities for maintaining Interstate facilities. Reconstruction is also eligible if it does not add capacity. However, high-occupancy-vehicle (HOV) and auxiliary lanes can be added. Funding is 90% federal and 10% state.

Surface Transportation Block Grant Program (STBG): This program is a flexible funding program that can be used for projects that preserve and improve the conditions and performance of any federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Funding is 80% federal and 20% state.

Transportation Alternatives Program (TAP): The TAP provides funding for programs and projects defined as transportation alternatives, including on and off road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. Funding is 80% federal and 20% state.

Highway Safety Improvement Program (HSIP): The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The goal of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. Funding is 90% federal and 10% state.

Bridges (BR): Funds the replacement or repair of structurally deficient or unsafe bridges in urban and rural areas. All brides, both on and off the federal-aid roadway system are eligible for funding. Funding is 80 % federal and 20% state.

National Highway Performance Program (NHPP): The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of federal-aid funds in highway construction are

directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS. NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Funding is 80% federal and 20% state.

National Highway Freight Program (NHFP): The purpose, among other goals, of the NHFP is to improve efficient movement of freight on the National Highway Freight Network (NHFN). Funding is 80% federal and 20% state.

High Priority Projects (HPP): HPP are congressionally earmarked projects that have been deemed as a high priority for the state where the project is located. Funding is 80% federal and 20% state.

Earmarks: Certain funding categories are investment-specific, i.e., funds are "earmarked" only for use in the development of a particular investment. This practice has ended in Congress, though some earmarks are still available for certain designated investments, and there are continued discussions of their inclusion in future authorizations. Previous earmark funding included: Section 115, Section 117, Section 125, and Section 129

Highway Infrastructure Program (HIP): HIP is a flexible funding source with the same eligibility and similar sub-allocation to STBG funding and comes with its own obligation limitation.

Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA): This funding has been provided to address coronavirus disease 2019 (COVID-19) impacts related to Highway Infrastructure Programs. CRRSAA funding can be used for up to 100% of the federal share of a project. This funding program expires in 2024.

National Electric Vehicle Infrastructure Formula Program (NEVI): This program provides funding to States to strategically deploy electric vehicle (EV) charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability. Funded projects must be located along designated alternative fuel corridors and the state must submit a plan to FHWA describing the planned use of funds. 10% of funding is set aside for discretionary grants to state and local governments that require additional assistance to strategically deploy EV charging infrastructure.

Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT): This program is to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community

resilience and evacuation routes, and at-risk coastal infrastructure. Funding is 80% federal and 20% state.

Next Generation Bridge Program (NGBP): These projects are advertising construction in the MPO region during the five-year TIP window with state funding and will be paid down by Grant Anticipation Notes (GANS) debt repayments in future years.

Carbon Reduction Program (CRP): This program provides funding for projects designed to reduce transportation emissions, defined as carbon dioxide (CO2) emissions from on-road highway sources.

Non-Federal Aid (NFA): This funding category contains all those projects not receiving federal funds. Various categories of state funding are included in this group including bikeways, State Aid (Chapter 90), and highway construction and maintenance (Chapter 497). This category is included in the TIP for informational purposes only. Funding is 100% state.

Transportation Bond Bill Funding: The Massachusetts Legislature passes transportation bond bills to provide state resources for investments in our transportation system. This provides the Commonwealth with authorization to issue bonds to support transportation capital expenditures. Such expenditures include matching funds for federally-funded STIP investments, both highway and transit, and Chapter 90 reimbursement funds for local transportation projects.

Section 5307 Urbanized Area Formula Funding Program: 5307 program funds are used for public transportation capital and operating assistance and for transportation-related planning. Eligible activities include planning, engineering design, capital investments in bus and bus-related activities, crime prevention and security equipment, construction of maintenance and passenger facilities, and capital investments in new and existing fixed route guideway systems including rolling stock, the overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software.

Section 5337 State of Good Repair Grants: 5337 is formula-based State of Good Repair program that provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans.

Section 5339 Bus and Bus Facilities: Section 5339 is formula-based capital program to replace, rehab, and purchase buses and related equipment; funds can also be used to construct bus related facilities.

8.) Amendment/Modification Procedures

Regional Overview

The TIP is considered a "living" document and, as such, often needs to be modified during the year. The definitions and procedures outlined in this section are followed when project-based revisions to the TIP are necessary.

This section includes the definitions of the revision procedures for both highway and transit. These procedures are the same as what was included in the 2024-2028 TIP. The information in this section provides details about each type of revision so the public as well as the CMMPO are better informed of the process. Tables 10 & 11 below describe MassDOT's amendment and adjustment procedures for highway and transit projects that are used within the STIP, which the CMMPO by virtue of its endorsement of the FFY 2025 - FFY 2029 TIP agrees to the following definitions regarding *Amendments, Adjustments* and *Administrative Modifications* to the TIP when revisions are required for projects within the Central Massachusetts region:

Definitions of TIP Revision Procedures

Amendment: a revision to the TIP that requires public review and demonstration of financial constraint. The public process for a TIP amendment requires a publicly advertised 21-day public comment period and for the CMMPO to address any public commentary prior to forwarding to MassDOT OTP for review and approval.

Adjustment: a revision to the TIP that does not require a public process, but that is required to be included in a CMMPO TIP action with a demonstration of financial constraint for MassDOT OTP review and approval.

Administrative Modification: a revision to the TIP that is minor enough in nature to require neither a public process nor CMMPO approval, but that does involve a notification to MassDOT OTP.

Table 10 - Highway Project TIP Revision Definitions and Procedures

Type of Revision	Definition	Procedure	Notes
Major Project Cost Change	Increase or decrease of $500,000 or greater for projects programmed under $5,000,000 and greater than 10% of the total cost for projects programmed over $5,000,000.	Amendment	The "increase" or "decrease" in cost is relative to the Total Federal Participating Cost (TFPC) of a project.
Minor Project Cost Change	Increase or decrease of $499,999 or less for projects programmed under $5,000,000 and less than 10% of the total cost for projects programmed over $5,000,000.	Adjustment	See above.
Project Description Change	Change in the description of the project as it is listed in the STIP.	Adjustment or Administrative Modification	Project description changes are treated as administrative modifications for minor changes (e.g. spelling errors, more detailed descriptions, adding mile-markers, etc.).
Major Project Scope Change	A revision to the project scope large enough to necessitate an additional review by MassDOT's Project Review Committee (PRC) – typically accompanied by major project cost change.	Amendment	In some cases, a major scope change will require the initiation of a new project through MassDOT's Project Initiation Form (PIF), and review/approval by PRC. This would require deactivation and removal of the currently programmed project.
Minor Project Scope Change	A minor revision to the project scope that does not significantly alter the original PRC-approved scope of work.	Adjustment	In many cases, changes in this category will also include a minor cost change.
Project Addition	The programming of a new project in any federal fiscal year of the active TIP.	Amendment or Adjustment	Project additions are treated as amendments if the project was not part of any previously approved STIP that has been vetted through the public process.
Project Removal	The removal of a project in any federal fiscal year of the active TIP.	Amendment	Exception: if a project is removed from an active TIP or the STIP due to it being previously advanced/advertised, or is moved to the statewide list from a regional TIP, the action would be considered an adjustment.
Change in Funding Source	A change in the project's funding source, including federal and non-federal sources which fall within the project cost change revisions listed above.	Adjustment	Changes in funding sources for projects are permissible for advertisement purposes if the FHWA Division Office has been consulted.
Change in Additional Information	A change in any item listed in the "Additional Information" column of the STIP not covered in any other item listed here (e.g. earmark details, project proponent, etc.)	Administrative Modification	N/A
Change in Year of Programming	Moving a currently programmed project earlier or later than an originally programmed year.	Amendment	Changes to a project delivery schedule (advancement or delay) requires an amendment for the change in programmed FFY.

Table 11 - Transit Project TIP Revision Definitions and Procedures

Type of Revision	Definition	Procedure	Notes
Major Project Cost Change	Increase or decrease of $500,000 or greater for projects under $5,000,000 and greater than 10% of the total cost for projects exceeding $5,000,000.	Amendment	The "increase" or "decrease" in cost is relative to the combined federal and non-federal aid participating cost of the project.
Minor Project Cost Change	Increase or decrease of $499,999 or less for projects under $5,000,000 and less than 10% of the total cost for projects exceeding $5,000,000.	Adjustment	See above.
Project Description Change	Change in the description of the project as it is listed in the STIP.	Adjustment or Administrative Modification	Project description changes are treated as administrative modifications for minor changes (e.g. spelling errors, more detailed descriptions, etc.).
Major Project Scope Change	A revision to the project scope deemed large enough to require public review and comment (e.g. changing the number of stations)	Amendment	In many cases, changes in this category will also include a major cost change.
Minor Project Scope Change	A minor revision to the project scope that does not significantly alter the original scope of work (e.g. changes to the bus model for vehicle replacement projects).	Adjustment	In many cases, changes in this category will also include a minor cost change.
Project Addition	The programming of a new project in any federal fiscal year of the current TIP.	Amendment or Adjustment	Project additions are treated as amendments if the project was not part of any previously approved STIP that has been vetted through the public process.
Project Removal	The removal of a project in any federal fiscal year of the current TIP.	Amendment	Exception: if a project is removed from a TIP or the STIP due to it being previously advanced/advertised, or is moved to the statewide list from a regional TIP, the action would be considered an adjustment.
Change in Funding Source	Change in the funding source, including federal and non-federal sources that fall within project cost change revisions listed in the first two rows.	Adjustment	Changes in funding sources for projects are permissible for obligation purposes with written notice from the FTA region office.
Change in Year of Programming	Moving a currently programmed project earlier or later than the originally programmed year.	Amendment or Adjustment	Note: Federal funds shall be programmed in the federal fiscal year in which the award will occur. Changes in year of programming are only treated as adjustments if they involve advancing federal funds to align with the year of the grant award.

Exceptions

Although MassDOT & CMMPO typically holds a 21-day public comment period for amendments, in the event of extenuating circumstances beyond the agency's control, the comment period may be shortened or waived in consultation with FHWA Division Office and/or the FTA Regional Office. Additionally, MassDOT may make exceptions to the procedures outlined above and treat amendments as adjustments and/or adjustments as administrative modifications, however these exceptions will also require coordination with and concurrence by MassDOT's federal partners and the affected MPO.

Part B: Federal Requirements

The first part of this section includes the financial plan which includes the project listing for both highway and transit. After the financial plan, there is a description of Environmental Justice (EJ) and an equity analysis of programmed TIP projects between 2020 and 2029. Next, an Air Quality Conformity summary is provided which is then followed by status update tables for both FFY 2024 highway and transit TIP projects.

1.) Financial Plan

- Highway Related Project Listing (FHWA) – *YOE adjustments 4% per year*
- Transit Related Project Listing (FTA)

2.) Environmental Justice

3.) TIP Equity Analysis

4.) Air Quality Conformity Information

5.) Status of FFY 2024 Projects: Highway & Transit

1.) TIP Financial Plan

Highway

MassDOT receives a funding "authorization" or estimate of total available federal funding from the FHWA. In recent years, this authorization has been approximately $600 million to $650 million, though this has increased to approximately $800 million under the Bipartisan Infrastructure Law (BIL) authorization. Each year, Congress reviews the highway authorization during its budgeting process and sets a ceiling on how much can be spent from that authorization. This ceiling, called an "obligation limitation", establishes the most MassDOT can spend in federal funding each year.

A portion of the federal highway funding allocated to Massachusetts is automatically held for the repayment of the Commonwealth's Next Generation Bridge Program (formerly the Accelerated Bridge Program (ABP)), which was established to significantly reduce the number of structurally deficient bridges statewide. Additionally, a certain amount of funding is dedicated for statewide activities such as planning and adjustments. Approximately one-third of the target funds available are dedicated to MPOs for regional priority projects. This distribution is determined according to a formula that is primarily based on each MPO's road mileage and population. The formula for distribution among the MPOs was developed by the Massachusetts Association of Regional Planning Agencies (MARPA) and is known as the "MARPA formula".

Below is a summary table covering the entire Central Massachusetts planning region which compares anticipated available funding (regional target funding through MassDOT OTP) to the total amount of funding programmed for CMMPO-prioritized projects included in the 2025-2029 TIP's highway-related project listing. Additionally, a 4% "year of expenditure" cost increase per year has been calculated for each project after 2025. For example, projects in 2026 were increased 4% from the current estimated cost and, accordingly, in 2029 there was an increase of 16%. The following table, which was produced for inclusion in this TIP document based *only* on reasonably anticipated funding expected to be available to the planning region, fully demonstrates that the CMMPO TIP can be implemented while also maintaining necessary financial constraint for each of the TIP's five (5) fiscal years. As can be seen in Table 12, the total programmed funds for each year are below the total funding targets allocated to the CMMPO, demonstrating financial constraint.

In the TIP highway project listing, the Next Generation Bridge Program (NGBP) projects are advertising construction during the five-year TIP window with state funding and will be paid down by Grant Anticipation Notes (GANS) debt repayments in future years.

Table 12 - 2025 – 2029 TIP Highway Funding for Target Projects

Funding Source	2025	2026	2027	2028	2029
Highway Safety Improvement Program (HSIP)	$2,000,000	$0	$13,426,040	$0	$0
Congestion Mitigation & Air Quality (CMAQ)	$6,811,050	$0	$0	$0	$0
Transportation Alternatives Program (TAP)	$0	$400,000	$400,000	$400,000	$400,000
Surface Transportation Block Grant (STBG)	$16,908,850	$15,026,394	$12,901,274	$25,611,496	$31,753,444
Total Programmed Funds:	$25,719,900	$15,426,394	$26,727,314	$26,011,496	$32,153,444
Total Funding Target:	$25,974,513	$25,339,043	$31,375,490	$31,966,068	$32,568,455
Remaining Funds:	**$254,613**	**$9,912,649**	**$4,648,176**	**$5,954,572**	**$415,011**

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2025							$151,809,322	$119,924,300	$31,885,023	
Section 1A / Regionally Prioritized Projects							$25,719,900	$20,775,920	$4,943,980	
Roadway Reconstruction							$11,404,931	$9,123,945	$2,280,986	
2025	602659	Central Mass	Multiple	CHARLTON- OXFORD- RECONSTRUCTION ON ROUTE 20, FROM RICHARDSON'S CORNER EASTERLY TO ROUTE 12, INCLUDES REHAB OF C-06-023 & REPLACEMENT OF O-06-002	3	CMAQ	$2,776,050	$2,220,840	$555,210	Construction, Total Project Cost = $78,222,752, CMAQ + NHPP + STBG Project is AC'd between 2022 and 2025, PM Score = 22 out of 27, Advertised on 4/23/22
2025	609049	Central Mass	West Brookfield	WEST BROOKFIELD- RESURFACING & RELATED WORK ON ROUTE 9, FROM 850' WEST OF WELCOME ROAD TO PIERCE ROAD (1 MILE - PHASE II)	2	STBG	$8,628,881	$6,903,105	$1,725,776	Construction, Total Project Cost = $8,628,881, Design Status = 100%, PM Score = 11 out of 27
Intersection Improvements							$14,279,969	$11,623,975	$2,655,994	
2025	608778	Central Mass	Southbridge	SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL STREET, FOSTER STREET, HOOK STREET AND HAMILTON STREET	3	CMAQ	$2,000,000	$1,600,000	$400,000	Construction, CMAQ + HSIP + STBG Total Project Cost = $7,279,443, Design Status = Final Design, PM Score = 14 out of 27
2025	608778	Central Mass	Southbridge	SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL STREET, FOSTER STREET, HOOK STREET AND HAMILTON STREET	3	HSIP	$1,000,000	$900,000	$100,000	Construction, CMAQ + HSIP + STBG Total Project Cost = $7,279,443, Design Status = Final Design, PM Score = 14 out of 27
2025	608778	Central Mass	Southbridge	SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL STREET, FOSTER STREET, HOOK STREET AND HAMILTON STREET	3	STBG	$4,279,443	$3,423,554	$855,889	Construction, CMAQ + HSIP + STBG Total Project Cost = $7,279,443, Design Status = Final Design, PM Score = 14 out of 27
2025	608961	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS ON CHANDLER STREET AND MAY STREET	3	CMAQ	$2,000,000	$1,600,000	$400,000	Construction, CMAQ + HSIP + STBG Total Project Cost = $6,000,526, Design Status = 25%, PM Score = 14 out of 27
2025	608961	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS ON CHANDLER STREET AND MAY STREET	3	HSIP	$1,000,000	$900,000	$100,000	Construction, CMAQ + HSIP + STBG Total Project Cost = $6,000,526, Design Status = 25%, PM Score = 14 out of 27
2025	608961	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS ON CHANDLER STREET AND MAY STREET	3	STBG	$3,000,526	$2,400,421	$600,105	Construction, CMAQ + HSIP + STBG Total Project Cost = $6,000,526, Design Status = 25%, PM Score = 14 out of 27
2025	S12938	Central Mass		CMMPO PROJECT DESIGN FUNDING PROGRAM		STBG	$1,000,000	$800,000	$200,000	Set aside for Project Design Funding Program.

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2025							$148,082,417	$116,197,395	$31,885,023	
Transit Grant Program							$35,000	$28,000	$7,000	
2025	S12936	Central Mass	Worcester	WORCESTER- PURCHASE OF NEW BICYCLE RACKS	3	CMAQ	$35,000	$28,000	$7,000	Total Project Cost = $35,000, Project is part of Micro-Projects Program, Local Match will be provided by City of Worcester.
						CMAQ Programmed	$6,811,050	$5,448,840	$1,362,210	
						HSIP Programmed	$2,000,000	$1,800,000	$200,000	
						STBG Programmed	$16,908,850	$13,527,080	$3,381,770	
						Total Programmed for Central Mass Region Projects*	$25,719,900	$20,775,920	$4,943,980	
						Program Target for Central Mass Region Projects	$25,974,513	$20,779,610	$5,194,903	
						Target Funds Available for Central Mass Region Projects	$254,613	$3,690	$250,923	
Section 1B / Earmark or Discretionary Grant Funded Projects							$44,398,093	$38,278,479	$6,119,614	
Bridge Off-system Local NB							$13,800,023	$13,800,023	$0	
2025	610769	Central Mass	Sutton	SUTTON- SUPERSTRUCTURE REPLACEMENT, S-33-002, MANCHAUG ROAD OVER MUMFORD RIVER	3	BROFF	$13,800,023	$13,800,023	$0	Construction, Total Project Cost = $13,800,023, Design Status = 25%
Bridge Systematic Maintenance NB							$30,598,070	$24,478,456	$6,119,614	
2025	612874	Central Mass	Multiple	SHREWSBURY- WORCESTER- BRIDGE PRESERVATION, S-14-021=W-44-115 (1RA & 1RB), I-290 (EB AND WB) OVER COMBINATION OF LAKE QUINSIGMOND AND LAKE AVENUE NORTH	3	HIP-BR	$23,098,070	$18,478,456	$4,619,614	Construction, Total Project Cost = $23,098,070, Design Status = Approved
2025	613208	Central Mass	Worcester	WORCESTER- CLEANING & PAINTING OF BRIDGES ON I-190: W-44-124 (1XF, 1XG), W-44-126 (1XJ, 1XK), W-44-127 (1XL), W-44-132 (1XN, 1XP), AND W-44-133 (1XQ, 1XR)	3	HIP-BR	$7,500,000	$6,000,000	$1,500,000	Construction, Total Project Cost = $7,500,000, Design Status = Approved

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2025							$151,809,322	$119,924,300	$31,885,023	
Section 2A / Federal Aid Funded State Prioritized Reliability Projects							$59,543,507	$48,342,996	$11,200,512	
Bridge Off-system							$20,199,674	$16,159,739	$4,039,935	
2025	609185	Central Mass	Worcester	WORCESTER- BRIDGE RECONSTRUCTION OF W-44-083, HARRISON STREET OVER I-290 & W-44-093, LAUREL STREET OVER I-290	3	STBG-BR-Off	$20,199,674	$16,159,739	$4,039,935	Construction, Total Project Cost = $20,199,674 Design Status = 75%
Safety Improvements							$7,081,899	$6,373,709	$708,190	
2025	610717	Central Mass	Multiple	UXBRIDGE TO WORCESTER- GUIDE AND TRAFFIC SIGN REPLACEMENT ON A SECTION OF ROUTE 146	3	HSIP	$7,081,899	$6,373,709	$708,190	Construction, Total Project Cost = $7,081,899, Design Status = 25%
Bridge On-system NHS							$26,652,753	$21,321,745	$5,330,436	
2025	612195	Central Mass	Worcester	WORCESTER- SUPERSTRUCTURE REPLACEMENT, W-44-091, I-290 OVER EAST CENTRAL STREET	3	NHPP-PEN	$26,652,753	$21,321,745	$5,330,436	Construction, Total Project Cost = $26,652,753, Design Status = Approved
Highway Resiliency Improvement Program							$5,609,753	$4,487,802	$1,121,951	
2025	612608	Central Mass	Worcester	WORCESTER - FLOOD RELIEF ON ROUTE 20, GRAFTON STREET (ROUTE 122) INTERCHANGE TO FLINT POND	3	PRCT	$5,609,753	$4,487,802	$1,121,951	Construction, Total Project Cost = $5,609,753, Design Status = Approved
Section 2B / Federal Aid Funded State Prioritized Modernization Projects							$11,000,000	$8,800,000	$2,200,000	
Roadway Reconstruction							$11,000,000	$8,800,000	$2,200,000	
2025	608491	Central Mass	Mendon	MENDON- RESURFACING AND RELATED WORK ON ROUTE 16	3	NHPP	$11,000,000	$8,800,000	$2,200,000	Construction, Project is AC'd between 2025 & 2026, Total Project Cost = $27,224,764, Design Status = 100%
Section 3B / Non-Federal Aid Funded							$7,420,917	$0	$7,420,917	
Bridge On-system Non-NHS							$7,420,917	$0	$7,420,917	
2025	612190	Central Mass	Holden	HOLDEN- BRIDGE REPLACEMENT, H-18-004, SALISBURY STREET OVER PW RAILROAD	3	NGBP	$7,420,917	$0	$7,420,917	Construction, Total Project Cost = $7,420,917, Design Status = 25%

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2026							$78,463,003	$51,930,755	$26,532,248	
Section 1A / Regionally Prioritized Projects							$15,426,394	$12,341,115	$3,085,279	
Roadway Improvements							$1,662,781	$1,330,225	$332,556	
2026	608456	Central Mass	Upton	UPTON- CULVERT REPLACEMENT, MILFORD STREET (ROUTE 140) OVER UNNAMED TRIBUTARY TO CENTER BROOK	3	STBG	$1,662,781	$1,330,225	$332,556	Construction, Total Project Score = $1,662,781, Design Status = 25%, YOE = 4%, PM Score = 9 out of 27
Roadway Reconstruction							$12,363,613	$9,890,890	$2,472,723	
2026	610535	Central Mass	Worcester	WORCESTER- PEDESTRIAN AND BICYCLE IMPROVEMENTS ON PLEASANT STREET	3	STBG	$5,703,349	$4,562,679	$1,140,670	Construction, Total Project Cost = $5,703,349, Design Status = Approved, YOE = 4%, PM Score = 11 out of 27
2026	611933	Central Mass	Sturbridge	STURBRIDGE- ROUNDABOUT CONSTRUCTION AT THE INTERSECTION OF ROUTE 20 AND ROUTE 131	3	STBG	$6,660,264	$5,328,211	$1,332,053	Construction, Total Project Cost = $6,660,264, Design Status = Approved, YOE = 4%, PM Score = 15 our of 27
Transit Grant Program							$400,000	$320,000	$80,000	
2026	S12937	Central Mass		CMMPO LRTP MICRO-PROJECTS PROGRAM		TAP	$400,000	$320,000	$80,000	Set aside for LRTP Micro-Projects program
Intersection Improvements							$1,000,000	$800,000	$200,000	
2026	S12939	Central Mass		CMMPO PROJECT DESIGN FUNDING PROGRAM		STBG	$1,000,000	$800,000	$200,000	Se aside for Project Design Funding Program

STBG Programmed	$15,026,394	$12,021,115	$3,005,279
TAP Programmed	$400,000	$320,000	$80,000
Total Programmed for Central Mass Region Projects*	$15,426,394	$12,341,115	$3,085,279
Program Target for Central Mass Region Projects	$25,339,043	$20,271,234	$5,067,809
Target Funds Available for Central Mass Region Projects	$9,912,649	$7,930,119	$1,982,530

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2026							$78,463,003	$51,930,755	$26,532,248	
Section 2A / Federal Aid Funded State Prioritized Reliability Projects							$26,530,361	$21,224,289	$5,306,072	
Bridge Off-system							$14,791,382	$11,833,106	$2,958,276	
2026	608862	Central Mass	Southbridge	SOUTHBRIDGE- BRIDGE REPLACEMENT, S-21-009, MILL STREET OVER MCKINSTRY BROOK & S-21-003, MILL STREET OVER THE QUINEBAUG RIVER	3	STBG-BR-Off	$9,214,736	$7,371,789	$1,842,947	Construction, Total Project Cost = $9,214,736, Design Status = 25%, YOE = 4%
2026	612084	Central Mass	Barre	BARRE- BRIDGE REPLACEMENT, B-02-004, OLD COLDBROOK ROAD OVER PRINCE RIVER	2	STBG-BR-Off	$1,243,944	$995,155	$248,789	Construction, Total Project Cost = $1,243,944, Design Status = Approved, YOE = 4%
2026	612092	Central Mass	Uxbridge	UXBRIDGE- BRIDGE REPLACEMENT, U-02-051, HOMEWARD AVENUE OVER PROVIDENCE WORCESTER RAILROAD	3	STBG-BR-Off	$4,332,702	$3,466,162	$866,540	Construction, Total Project Cost = $4,332,702, Design Status = Approved, YOE = 4%
Bridge On-system NHS							$11,738,979	$9,391,183	$2,347,796	
2026	609186	Central Mass	Dudley	DUDLEY- BRIDGE REPLACEMENT, D-12-026, STATE ROUTE 131 OVER THE QUINEBAUG RIVER	3	NHPP-PEN	$11,738,979	$9,391,183	$2,347,796	Construction, Total Project Cost = $11,738,979, Design Status = Approved, YOE = 4%
Section 2B / Federal Aid Funded State Prioritized Modernization Projects							$22,956,689	$18,365,351	$4,591,338	
Roadway Reconstruction							$21,786,689	$17,429,351	$4,357,338	
2026	608490	Central Mass	Upton	UPTON- RESURFACING AND RELATED WORK ON ROUTE 140 AND ROUNDABOUT CONSTRUCTION AT ROUTE 140, CHURCH STREET AND GROVE STREET	3	NHPP	$8,050,057	$6,440,046	$1,610,011	Construction, Total Project Cost = $8,050,057, Design Status = 25%, YOE = 4%
2026	608491	Central Mass	Mendon	MENDON- RESURFACING AND RELATED WORK ON ROUTE 16	3	NHPP	$13,736,632	$10,989,306	$2,747,326	Construction, Project is AC'd between 2025 & 2026, Total Project Cost = $27,224,764, Design Status = 100%
Safe Routes to School							$1,170,000	$936,000	$234,000	
2026	612893	Central Mass	Sturbridge	STURBRIDGE- IMPROVEMENTS AT BURGESS ELEMENTARY SCHOOL (SRTS)	3	TAP	$1,170,000	$936,000	$234,000	Construction, Total Project Cost = $1,170,000, Design Status = Approved, YOE = 4%
Section 3B / Non-Federal Aid Funded							$13,549,559	$0	$13,549,559	
Bridge On-system NHS							$13,549,559	$0	$13,549,559	
2026	612192	Central Mass	Auburn	AUBURN- BRIDGE REPLACEMENT, A-17-038, US 20 (WB) WASHINGTON STREET OVER I-395	3	NGBP	$13,549,559	$0	$13,549,559	Construction, Total Project Cost = $13,549,559, Design Status = Approved, YOE = 4%

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2027							$89,429,127	$48,043,631	$41,385,496	
Section 1A / Regionally Prioritized Projects							$26,727,314	$22,724,455	$4,002,859	
Roadway Reconstruction							$20,861,082	$17,584,846	$3,276,236	
2027	608990	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM MAIN STREET TO QUEEN STREET	3	HSIP	$4,418,408	$3,976,567	$441,841	Construction, HSIP + STBG Total Project Cost = $6,418,408, Design Status = Approved, YOE = 8%, PM Score = 18 out of 27
2027	608990	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM MAIN STREET TO QUEEN STREET	3	STBG	$2,000,000	$1,600,000	$400,000	Construction, HSIP + STBG Total Project Cost = $6,418,408, Design Status = Approved, YOE = 8%, PM Score = 18 out of 27
2027	610931	Central Mass	Uxbridge	UXBRIDGE- REHABILITATION OF ROUTE 16 (DOUGLAS STREET), FROM TAFT HILL ROAD TO 200 FT WEST ON MAIN STREET	3	STBG	$9,901,274	$7,921,019	$1,980,255	Construction, Total Project Cost = $9,901,274, Design Status = 25%, YOE = 18%, PM Score = 13 out of 27
2027	612011	Central Mass	Worcester	WORCESTER- INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM QUEEN STREET TO PARK AVENUE	3	HSIP	$4,541,400	$4,087,260	$454,140	Construction, Total Project Cost = $4,541,400, Design Status = Approved, YOE = 8%, PM Score = 17 out of 27
Intersection Improvements							$5,466,232	$4,819,609	$646,623	
2027	609441	Central Mass	Northbridge	NORTHBRIDGE- INTERSECTION IMPROVEMENTS AT ROUTE 122 (PROVIDENCE ROAD), SCHOOL STREET, SUTTON STREET, AND UPTON STREET	3	HSIP	$4,466,232	$4,019,609	$446,623	Construction, Total Project Cost = $4,466,232, Design Status = Approved, YOE = 8%, PM Score = 16 out of 27
2027	S12941	Central Mass		CMMPO PROJECT DESIGN FUNDING PROGRAM		STBG	$1,000,000	$800,000	$200,000	Set aside for Project Design Funding Program.
Transit Grant Program							$400,000	$320,000	$80,000	
2027	S12940	Central Mass		CMMPO LRTP MICRO-PROJECTS PROGRAM		TAP	$400,000	$320,000	$80,000	Set aside for LRTP Micro-Projects Program

HSIP Programmed	$13,426,040	$12,083,436	$1,342,604
STBG Programmed	$12,901,274	$10,321,019	$2,580,255
TAP Programmed	$400,000	$320,000	$80,000
Total Programmed for Central Mass Region Projects*	$26,727,314	$22,724,455	$4,002,859
Program Target for Central Mass Region Projects	$31,375,490	$25,100,392	$6,275,098
Target Funds Available for Central Mass Region Projects	$4,648,176	$2,375,937	$2,272,239

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2027							$89,429,127	$48,043,631	$41,385,496	
Section 1B / Earmark or Discretionary Grant Funded Projects							$4,731,372	$4,731,372	$0	
Bridge Off-system Local NB							$4,731,372	$4,731,372	$0	
2027	613143	Central Mass	West Brookfield	WEST BROOKFIELD- BRIDGE REPLACEMENT, W-19-002 (187), LONG HILL ROAD OVER QUABOAG RIVER	2	BROFF	$4,731,372	$4,731,372	$0	Construction, Total Project Cost = $4,731,372, Design Status = Approved, YOE = 8%
Section 2A / State Prioritized Reliability Projects							$23,131,280	$18,896,524	$4,234,756	
Safety Improvements							$3,915,000	$3,523,500	$391,500	
2027	611967	Central Mass	Multiple	STURBRIDGE- CHARLTON- INTERSECTION IMPROVEMENTS ON ROUTE 49 AT PUTNAM ROAD, WALKER POND ROAD & ROUTE 20	3	HSIP	$3,915,000	$3,523,500	$391,500	Construction, Total Project Cost = $3,915,000, Design Status = Approved, YOE = 8%
Non-Interstate Pavement							$5,184,000	$4,147,200	$1,036,200	
2027	612089	Central Mass	Southbridge	DUDLEY- SOUTHBRIDGE- RESURFACING AND RELATED WORK ON ROUTE 131	3	NHPP	$5,184,000	$4,147,200	$1,036,800	Construction, Total Project Cost = $5,184,000, Design Status = Approved, YOE = 8%
Bridge On-system NHS							$4,096,280	$3,277,024	$819,256	
2027	612181	Central Mass	Charlton	CHARLTON- BRIDGE REPLACEMENT, C-06-019, US 20 STURBRIDGE ROAD OVER CADY BROOK	3	NHPP-PEN	$4,096,280	$3,277,024	$819,256	Construction, Total Project Cost = $4,096,280, Design Status = Approved, YOE = 8%
Bridge Systematic Maintenance							$9,936,000	$7,948,800	$1,987,200	
2027	613183	Central Mass	Worcester	WORCESTER- BRIDGE PRESERVATION, W-44-100 (1KH), W-44-101 (1TG) AND W-44-138 (1TQ), I-190 & I-290 INTERCHANGE	3	NHPP	$9,936,000	$7,948,800	$1,987,200	Construction, Total Project Cost = $9,936,000, Design Status = Approved, YOE = 8%
Section 2B / Federal Aid Funded State Prioritized Modernization Projects							$2,114,100	$1,691,280	$422,820	
Safe Routes to School							$2,114,100	$1,691,280	$422,820	
2027	613367	Central Mass	Westborough	WESTBOROUGH- FISHER STREET IMPROVEMENTS (SRTS)	3	TAP	$2,114,100	$1,691,280	$422,820	Construction, Total Project Cost = $2,114,100, Design Status = Approved, YOE = 8%
Section 3B / Non-Federal Aid Funded							$32,725,061	$0	$32,725,061	
Bridge On-system Non-NHS							$32,725,061	$0	$32,725,061	
2027	605323	Central Mass	Oxford	OXFORD- BRIDGE REPLACEMENT, O-06-030, (ST 56) LEICESTER ROAD OVER THE FRENCH RIVER	3	NGBP	$4,067,757	$0	$4,067,757	Construction, Total Project Cost = $4,067,757, Design Status = 25%, YOE = 8%

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2028							$51,174,862	$42,392,761	$8,782,101	
Section 1A / Regionally Prioritized Projects							$26,011,496	$20,809,197	$5,202,299	
Roadway Reconstruction							$9,564,800	$7,651,840	$1,912,960	
2028	611988	Central Mass	Oxford	OXFORD- ROADWAY REHABILITATION ON ROUTE 12 (MAIN STREET)	3	STBG	$9,564,800	$7,651,840	$1,912,960	Construction, Total Project Cost = $9,564,800, Design Status = Approved, YOE = 12%, PM Score 15 out of 27
Intersection Improvements							$12,671,128	$10,136,902	$2,534,226	
2028	613097	Central Mass	Spencer	SPENCER- INTERSECTION IMPROVEMENTS AT ROUTE 9 AND ROUTE 49	3	STBG	$11,671,128	$9,336,902	$2,334,226	Construction, Total Project Cost = $11,671,128, Design Status = 25%, YOE = 12%, PM Score = 15 out of 27
2028	S12943	Central Mass		CMMPO PROJECT DESIGN FUNDING PROGRAM		STBG	$1,000,000	$800,000	$200,000	Set aside for Project Design Funding Program
Safety Improvements							$3,375,568	$2,700,454	$675,114	
2028	613655	Central Mass	Rutland	RUTLAND- INTERSECTION IMPROVEMENTS AT ROUTE 122 AND PLEASANTDALE ROAD	3	STBG	$3,375,568	$2,700,454	$675,114	Construction, Total Project Cost = $3,375,568, Design Status = Approved, YOE = 12%, PM Score = 8 out of 27
Transit Grant Program							$400,000	$320,000	$80,000	
2028	S12942	Central Mass		CMMPO LRTP MICRO-PROJECTS PROGRAM		TAP	$400,000	$320,000	$80,000	Set aside for LRTP Micro-Projects program

STBG Programmed	$25,611,496	$20,489,197	$5,122,299
TAP Programmed	$400,000	$320,000	$80,000
Total Programmed for Central Mass Region Projects*	$26,011,496	$20,809,197	$5,202,299
Program Target for Central Mass Region Projects	$31,966,068	$25,572,854	$6,393,214
Target Funds Available for Central Mass Region Projects	$5,954,572	$4,763,657	$1,190,915

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2028							$51,174,862	$42,392,761	$8,782,101	
Section 1B / Earmark or Discretionary Grant Funded Projects							$2,021,192	$2,021,192	$0	
Bridge Off-system Local NB							$2,021,192	$2,021,192	$0	
2028	613126	Central Mass	East Brookfield	EAST BROOKFIELD- BRIDGE SUPERSTRUCTURE REPLACEMENT, E-02-005, COVE STREET OVER SEVEN MILE RIVER	3	BROFF	$2,021,192	$2,021,192	$0	Construction, Total Project Cost = $2,021,192, Design Status = Approved, YOE = 12%
Section 2A / Federal Aid Funded State Prioritized Reliability Projects							$4,655,840	$3,724,701	$931,168	
Bridge Off-system							$4,655,840	$3,724,701	$931,168	
2028	608334	Central Mass	Charlton	CHARLTON- BRIDGE REHABILIATION, C-06-040, NORTHSIDE ROAD OVER I-90	3	STBG-BR-Off	$4,655,840	$3,724,701	$931,168	Construction, Total Project Cost = $4,655,840, Design Status = Approved, YOE = 12%
Section 2B / Federal Aid Funded State Prioritized Modernization Projects							$18,486,334	$15,837,701	$2,648,633	
Intersection Improvements							$10,486,334	$9,437,701	$1,048,701	
2028	607764	Central Mass	Shrewsbury	SHREWSBURY- INTERSECTION & SIGNAL IMPROVEMENT AT US 20 (HARTFORD TURNPIKE) AT GRAFTON STREET	3	HSIP	$10,486,334	$9,437,701	$1,048,701	Construction, Total Project Cost = $10,486,334, Design Status = 25%, YOE = 12%
Roadway Reconstruction							$8,000,000	$6,400,000	$1,600,000	
2028	610825	Central Mass	Shrewsbury	SHREWSBURY- REHABILITATION & BOX WIDENING ON ROUTE 20, FROM ROUTE 9 TO SOUTH STREET	3	NHPP	$8,000,000	$6,400,000	$1,600,000	Construction, Project is AC'd between 2028 & 2029, Total Project Cost = $33,821,525, Design Status = 25%, YOE = 12%

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2029							$82,573,263	$68,332,210	$14,241,053	
Section 1A / Regionally Prioritized Projects							$32,153,444	$25,722,755	$6,430,689	
Roadway Reconstruction							$23,467,553	$18,774,042	$4,693,511	
2029	612779	Central Mass	West Brookfield	WEST BROOKFIELD- RESURFACING & RELATED WORK ON ROUTE 9 (PHASE III)	2	STBG	$13,230,728	$10,584,582	$2,646,146	Construction, Total Project Cost = $13,230,728, Design Status = Approved, YOE = 16%, PM Score 15 out of 27
2029	613242	Central Mass	Westborough	WESTBOROUGH- ROADWAY IMPROVEMENTS ON ROUTE 30 (EAST MAIN STREET), FROM HASTINGS ELEMENTARY TO THOMAS NEWTON DRIVE	3	STBG	$10,236,825	$8,189,460	$2,047,365	Construction, Total Project Cost = $10,236,825, Design Status = Approved, YOE = 16%, PM Score = 15 out of 27
Intersection Improvements							$8,285,891	$6,628,713	$1,657,178	
2029	613648	Central Mass	Worcester	WORCESTER-INTERSECTION IMPROVEMENTS AT LAKE AVENUE AND BIGELOW DAVIS PARKWAY (FORMERLY HAMILTON STREET)	3	STBG	$7,785,891	$6,228,713	$1,657,178	Construction, Total Project Cost = $7,785,891, Design Status = Approved, YOE = 16%, PM Score 15 out of 27
2029	S12945	Central Mass		CMMPO PROJECT DESIGN FUNDING PROGRAM		STBG	$500,000	$400,000	$100,000	Set aside for Project Design Funding Program.
Transit Grant Program							$400,000	$320,000	$80,000	
2028	S12944	Central Mass		CMMPO LRTP MICRO-PROJECTS PROGRAM		TAP	$400,000	$320,000	$80,000	Set aside for LRTP Micro-Projects program
						STBG Programmed	$31,753,444	$25,402,755	$6,350,689	
						TAP Programmed	$400,000	$320,000	$80,000	
						Total Programmed for Central Mass Region Projects*	$32,153,444	$25,722,755	$6,430,689	
						Program Target for Central Mass Region Projects	$32,568,455	$26,054,764	$6,513,691	
						Target Funds Available for Central Mass Region Projects	$415,011	$332,009	$83,002	

*Only includes funds counting against obligation authority

Central Mass Region Program

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2029							$82,573,263	$68,332,210	$14,241,053	
Section 1B / Earmark or Discretionary Grant Funded Projects							$11,368,000	$11,368,000	$0	
Bridge Off-system Local NB							$11,368,000	$11,368,000	$0	
2029	613293	Central Mass	New Braintree	NEW BRAINTREE- BRIDGE REHABILITATION, N-07-004 (185), BARR ROAD OVER MEADOW BROOK	2	BROFF	$11,368,000	$11,368,000	$0	Construction, Total Project Cost = $11,368,000, Design Status = Approved, YOE = 16%
Section 2A / Federal Aid Funded State Prioritized Reliability Projects							$13,230,294	$10,584,235	$2,646,059	
Bridge Off-system							$13,230,294	$10,584,235	$2,646,059	
2029	613290	Central Mass	West Boylston	WEST BOYLSTON- BRIDGE REHABILITATION, W-17-006 (22U), HARTWELL STREET OVER B&M RAILROAD	3	STBG-BR-Off	$6,576,620	$5,261,296	$1,315,324	Construction, Total Project Cost = $6,576,620, Design Status = Approved, YOE = 16%
2029	613291	Central Mass	Auburn	AUBURN- BRIDGE REPLACEMENT, A-17-050 (4KH), BANCROFT STREET OVER I-90	3	STBG-BR-Off	$2,000,000	$1,600,000	$400,000	Construction, Total Project Cost = $46,023,000, Design Status = Approved, YOE = 16%
2029	613303	Central Mass	Barre	BARRE- BRIDGE REPLACEMENT, B-02-003 (16K), VALLEY ROAD OVER PRINCE RIVER	2	STBG-BR-Off	$4,653,674	$3,722,939	$930,735	Construction, Total Project Cost = $4,653,674, Design Status = Approved, YOE = 16%
Section 2B / Federal Aid Funded State Prioritized Modernization Projects							$25,821,525	$20,657,220	$5,164,305	
Roadway Reconstruction							$25,821,525	$20,657,220	$5,164,305	
2028	610825	Central Mass	Shrewsbury	SHREWSBURY- REHABILITATION & BOX WIDENING ON ROUTE 20, FROM ROUTE 9 TO SOUTH STREET	3	NHPP	$25,821,525	$20,657,220	$5,164,305	Construction, Project is AC'd between 2028 & 2029, Total Project Cost = $33,821,525, Design Status = 25%, YOE = 12%

*Only includes funds counting against obligation authority

Transit

Transit projects funded in the TIP allow the WRTA to operate and maintain the fleet of vehicles and other infrastructure needed to meet the transportation needs of the Central Massachusetts region and WRTA's service area, which includes 36 communities. The agency offers many types of services that cater to many different customer types including year-round fixed-route services and demand response services. The WRTA offers reliable, comfortable, and safe transportation for traveling to work, shopping, school, medical appointments, and leisure activities. The WRTA also provides Paratransit service for the elderly and disabled, as well as a variety of special services for those groups in the entire service area.

The year-round fixed-route service provides transportation for the City of Worcester and numerous surrounding towns. The WRTA transit system includes 23 routes within the fixed-route bus service. In addition, there are multiple community shuttle flex van services in other communities in the CMMPO region that the fixed-route system does not serve. The WRTA also provides ADA Paratransit service for people whose disabilities prevent them from using the regularly accessible WRTA fixed-route system. The ADA service area is available within ¾ mile area surrounding each of the WRTA's fixed routes.

FTA Section 5307, 5337, and 5339 funds are directly apportioned to 12 of the 15 RTAs based on urbanized area population and the agreed upon funding splits between other public transit agencies that fall into the UZA. The other 3 "rural" RTAs are not direct recipients of FTA funding, instead receiving Section 5311 funds as sub recipients of MassDOT with funding splits based on formula. Descriptions of the above funding programs are:

- **Section 5307 Urbanized Area Formula Funding Program** – 5307 program funds are used for public transportation capital and operating assistance and for transportation-related planning. Eligible activities include planning, engineering design, capital investments in bus and bus-related activities, crime prevention and security equipment, construction of maintenance and passenger facilities, and capital investments in new and existing fixed route guideway systems including rolling stock, the overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software.
- **Section 5337 State of Good Repair Grants** – 5337 is formula-based State of Good Repair program that provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans.
- **Section 5339 Bus and Bus Facilities** – Section 5339 is formula-based capital program to replace, rehab, and purchase buses and related equipment; funds can also be used to construct bus related facilities.

Table 13 shows the funding information for the 2025 – 2029 transit project listing. The table contains the FTA program, the total amount of expected apportioned federal funds, the total amount of programmed federal funds, and the remaining federal funds. This information is available for the 5307, 5337, and 5339 FTA programs. Since FTA only releases the apportionments for the current fiscal year, the 2025-2029 federal funds are the projected totals from what the WRTA expects to receive. In addition to the annual apportioned funds, the WRTA is also allowed to use carryover funding from the previous years of unspent funds. As the table shows, all FTA programs are in fiscal constraint for all five years of the TIP. Carryover funds are used for 5307 if programmed funds exceed the apportioned amount. As shown in the below table, the available 2024 carryover funds are $14,087,617.

Table 13 - 2025 – 2029 TIP Transit Funding

FTA Program	2025	2026	2027	2028	2029
5307 Funds	$13,695,773	$14,024,471	$14,164,716	$14,306,363	$14,306,363
Available Carryover Funds*	$14,087,617	$13,947,707	$14,587,951	$18,740,241	$23,142,349
Programmed Funds	$13,835,683	$13,384,227	$10,012,426	$9,904,255	$14,481,735
Remaining Carryover Funds	$13,947,707	$14,587,951	$18,740,241	$23,142,349	$22,966,977
5337 Funds	$4,594,376	$4,640,320	$4,686,723	$4,733,591	$4,733,591
Programmed Funds	$4,594,376	$4,640,320	$4,686,723	$4,733,591	$4,733,591
Remaining Funds	$0	$0	$0	$0	$0
5339 Funds	$546,168	$551,629	$557,146	$562,717	$562,717
Programmed Funds	$546,168	$551,629	$557,146	$0	$0
Remaining Funds	$0	$0	$0	$562,717	$1,125,434

** - Available 5307 carryover funds from previous years are listed in the above table. They are used when the programmed funds are more than the apportioned funds. The last row shows the remaining balance of carryover funds as they are used for each year.*

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2025							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
Worcester Regional Transit Authority							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
2025	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	5307	$58,403,670	$1,000,000	$1,000,000				30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2025	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	SCA	$58,403,670	$1,000,000		$1,000,000			30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2025	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5307	$23,900,000	$7,453,832	$7,453,832				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2025	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5339	$23,900,000	$546,168	$546,168				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2025	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	TDC	$23,900,000	$1,600,000		$1,600,000			11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2025	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	5307	$430,000	$80,000	$80,000				11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2025	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	RTACAP	$430,000	$20,000		$20,000			11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2025							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
Worcester Regional Transit Authority							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
2025	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	5307	$5,419,360	$1,771,900	$1,771,900				11.42.20	
2025	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	RTACAP	$5,419,360	$192,975		$192,975			11.42.20	
2025	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	TDC	$5,419,360	$200,000		$200,000			11.42.20	
2025	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	5307	$5,135,482	$729,453	$729,453				11.12.40	
2025	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	RTACAP	$5,135,482	$182,363		$182,363			11.12.40	
2025	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	5307	$367,746	$35,604	$35,604				11.92.02	
2025	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	RTACAP	$367,746	$8,901		$8,901			11.92.02	
2025	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	5307	$136,000	$20,000	$20,000				11.34.01	
2025	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	RTACAP	$136,000	$5,000		$5,000			11.34.01	
2025	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	5337	$29,235,751	$4,594,376	$4,594,376				11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2025	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	LF	$29,235,751	$1,148,594			$1,148,594		11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2025	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	5307	$2,850,974	$2,068,200	$2,068,200				11.44.02	
2025	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	RTACAP	$2,850,974	$17,050		$17,050			11.44.02	
2025	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	TDC	$2,850,974	$400,000		$400,000			11.44.02	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2025							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
Worcester Regional Transit Authority							$23,920,284	$18,976,227	$3,795,463	$1,148,594			
2025	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	5307	$1,942,446	$292,694	$292,694				11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2025	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	SCA	$1,942,446	$73,174		$73,174			11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2025	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	5307	$1,327,284	$200,000	$200,000				44.24.00	On-Call Short-Range Transportation Planning Services
2025	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	SCA	$1,327,284	$50,000		$50,000			44.24.00	On-Call Short-Range Transportation Planning Services
2025	WRTA011647		RTA Facility & System Modernization	Worcester Regional Transit Authority - Bus Stop Signage	5307	$130,000	$104,000	$104,000				11.92.08	
2025	WRTA011647		RTA Facility & System Modernization	Worcester Regional Transit Authority - Bus Stop Signage	RTACAP	$130,000	$26,000		$26,000			11.92.08	
2025	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	5307	$400,000	$80,000	$80,000				11.41.03	
2025	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	RTACAP	$400,000	$20,000		$20,000			11.41.03	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2026							$26,146,598	$18,576,176	$6,410,342	$1,160,080			
Worcester Regional Transit Authority							$26,146,598	$18,576,176	$6,410,342	$1,160,080			
2026	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	5307	$58,403,670	$3,901,837	$3,901,837				30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2026	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	SCA	$58,403,670	$3,901,837		$3,901,837			30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2026	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5307	$23,900,000	$7,128,371	$7,128,371				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2026	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5339	$23,900,000	$551,629	$551,629				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2026	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	RTACAP	$23,900,000	$1,920,000		$1,920,000			11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2026	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	5307	$430,000	$136,000	$136,000				11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2026	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	RTACAP	$430,000	$34,000		$34,000			11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2026	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	5307	$5,419,360	$741,760	$741,760				11.42.20	
2026	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	RTACAP	$5,419,360	$185,440		$185,440			11.42.20	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2026							$26,146,598	$18,576,176	$6,410,342	$1,160,080			
Worcester Regional Transit Authority							$26,146,598	$18,576,176	$6,410,342	$1,160,080			
2026	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	5307	$5,135,482	$705,700	$705,700				11.12.40	
2026	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	RTACAP	$5,135,482	$176,425		$176,425			11.12.40	
2026	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	5307	$367,746	$87,664	$87,664				11.92.02	
2026	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	RTACAP	$367,746	$21,916		$21,916			11.92.02	
2026	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	5307	$136,000	$20,800	$20,800				11.34.01	
2026	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	RTACAP	$136,000	$5,200		$5,200			11.34.01	
2026	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	5337	$29,235,751	$4,640,320	$4,640,320				11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2026	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	LF	$29,235,751	$1,160,080			$1,160,080		11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2026	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	5307	$2,850,974	$74,620	$74,620				11.44.02	
2026	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	RTACAP	$2,850,974	$18,655		$18,655			11.44.02	
2026	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	5307	$1,942,446	$301,475	$301,475				11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2026	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	SCA	$1,942,446	$75,369		$75,369			11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2026	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	5307	$1,327,284	$206,000	$206,000				44.24.00	On-Call Short-Range Transportation Planning Services
2026	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	SCA	$1,327,284	$51,500		$51,500			44.24.00	On-Call Short-Range Transportation Planning Services
2026	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	5307	$400,000	$80,000	$80,000				11.41.03	
2026	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	RTACAP	$400,000	$20,000		$20,000			11.41.03	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2027							$22,500,634	$15,256,295	$6,072,658	$1,171,681			
Worcester Regional Transit Authority							$22,500,634	$15,256,295	$6,072,658	$1,171,681			
2027	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	5307	$58,403,670	$4,573,686	$4,573,686				30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2027	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	SCA	$58,403,670	$4,573,686		$4,573,686			30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2027	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5307	$23,900,000	$3,202,854	$3,202,854				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2027	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	5339	$23,900,000	$557,146	$557,146				11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2027	RTD0010855		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	RTACAP	$23,900,000	$940,000		$940,000			11.12.01	Replacing 35' and 40' buses that have exceeded useful life. Replacing 6 buses in FY 2025, 7 buses in FY 2026, and 3 buses in FY 2027. In FY 2025, TDCs are being used as a soft match (20%) for Sec. 5307 and Sec. 5339 funds.
2027	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	5307	$430,000	$96,000	$96,000				11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2027	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	RTACAP	$430,000	$24,000		$24,000			11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2027	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	5307	$5,419,360	$616,312	$616,312				11.42.20	
2027	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	RTACAP	$5,419,360	$154,078		$154,078			11.42.20	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2027							$22,500,634	$15,256,295	$6,072,658	$1,171,681			
Worcester Regional Transit Authority							$22,500,634	$15,256,295	$6,072,658	$1,171,681			
2027	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	5307	$5,135,482	$773,491	$773,491				11.12.40	
2027	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	RTACAP	$5,135,482	$193,373		$193,373			11.12.40	
2027	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	5307	$367,746	$54,220	$54,220				11.92.02	
2027	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	RTACAP	$367,746	$13,555		$13,555			11.92.02	
2027	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	5307	$136,000	$21,600	$21,600				11.34.01	
2027	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	RTACAP	$136,000	$5,400		$5,400			11.34.01	
2027	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	5337	$29,235,751	$4,686,723	$4,686,723				11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2027	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	LF	$29,235,751	$1,171,681			$1,171,681		11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2027	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	5307	$2,850,974	$71,563	$71,563				11.44.02	
2027	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	RTACAP	$2,850,974	$17,891		$17,891			11.44.02	
2027	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	5307	$1,942,446	$310,520	$310,520				11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2027	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	SCA	$1,942,446	$77,630		$77,630			11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2027	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	5307	$1,327,284	$212,180	$212,180				44.24.00	On-Call Short-Range Transportation Planning Services
2027	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	SCA	$1,327,284	$53,045		$53,045			44.24.00	On-Call Short-Range Transportation Planning Services
2027	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	5307	$400,000	$80,000	$80,000				11.41.03	
2027	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	RTACAP	$400,000	$20,000		$20,000			11.41.03	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2028							$23,997,307	$14,637,846	$8,176,063	$1,183,398			
Worcester Regional Transit Authority							$23,997,307	$14,637,846	$8,176,063	$1,183,398			
2028	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	5307	$58,403,670	$7,600,000	$7,600,000				30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2028	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	SCA	$58,403,670	$7,600,000		$7,600,000			30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2028	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	5307	$430,000	$32,000	$32,000				11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2028	RTD0010856		RTA Vehicle Replacement	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	RTACAP	$430,000	$8,000		$8,000			11.42.11	Replacing support vehicles that have reached the end of their useful life. Replacing 1 vehicle in FY 2025, 3 vehicles in FY 2026, 3 vehicles in FY 2027, and 1 vehicle in FY 2028.
2028	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	5307	$5,419,360	$593,584	$593,584				11.42.20	
2028	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	RTACAP	$5,419,360	$148,396		$148,396			11.42.20	
2028	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	5307	$5,135,482	$909,838	$909,838				11.12.40	
2028	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	RTACAP	$5,135,482	$227,459		$227,459			11.12.40	
2028	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	5307	$367,746	$56,931	$56,931				11.92.02	
2028	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	RTACAP	$367,746	$14,233		$14,233			11.92.02	
2028	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	5307	$136,000	$22,400	$22,400				11.34.01	
2028	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	RTACAP	$136,000	$5,600		$5,600			11.34.01	
2028	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	5337	$29,235,751	$4,733,591	$4,733,591				11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2028	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	LF	$29,235,751	$1,183,398			$1,183,398		11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2028							$23,997,307	$14,637,846	$8,176,063	$1,183,398			
Worcester Regional Transit Authority							$23,997,307	$14,637,846	$8,176,063	$1,183,398			
2028	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	5307	$2,850,974	$71,120	$71,120				11.44.02	
2028	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	RTACAP	$2,850,974	$17,780		$17,780			11.44.02	
2028	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	5307	$1,942,446	$319,836	$319,836				11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2028	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	SCA	$1,942,446	$79,959		$79,959			11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2028	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	5307	$1,327,284	$218,546	$218,546				44.24.00	On-Call Short-Range Transportation Planning Services
2028	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	SCA	$1,327,284	$54,636		$54,636			44.24.00	On-Call Short-Range Transportation Planning Services
2028	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	5307	$400,000	$80,000	$80,000				11.41.03	
2028	WRTA011648		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	RTACAP	$400,000	$20,000		$20,000			11.41.03	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2029							$33,113,891	$19,215,326	$12,715,167	$1,183,398			
Worcester Regional Transit Authority							$33,113,891	$19,215,326	$12,715,167	$1,183,398			
2029	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	5307	$58,403,670	$12,126,312	$12,126,312				30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2029	RTD0010854		Operating	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	SCA	$58,403,670	$12,126,312		$12,126,312			30.09.01	Operating Assistance to provide fixed-route and paratransit service throughout WRTA area.
2029	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	5307	$5,419,360	$651,932	$651,932				11.42.20	
2029	RTD0010857		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	RTACAP	$5,419,360	$162,983		$162,983			11.42.20	
2029	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	5307	$5,135,482	$989,904	$989,904				11.12.40	
2029	RTD0010858		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	RTACAP	$5,135,482	$247,476		$247,476			11.12.40	
2029	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	5307	$367,746	$59,778	$59,778				11.92.02	
2029	RTD0010861		RTA Facility & System Modernization	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	RTACAP	$367,746	$14,944		$14,944			11.92.02	
2029	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	5307	$136,000	$24,000	$24,000				11.34.01	
2029	RTD0010863		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	RTACAP	$136,000	$6,000		$6,000			11.34.01	
2029	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	5337	$29,235,751	$4,733,591	$4,733,591				11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2029	RTD0010864	Worcester	RTA Facility & Vehicle Maintenance	City of Worcester: Rehabilitation of Union Station	LF	$29,235,751	$1,183,398			$1,183,398		11.34.03	Worcester Redevelopment Authority rehab/renovate of Worcester's Union Station. Sec. 5337 funding.
2029	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	5307	$2,850,974	$75,276	$75,276				11.44.02	
2029	RTD0010878		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	RTACAP	$2,850,974	$18,819		$18,819			11.44.02	

STIP Investments Report

Program Activity: Transit, Worcester Regional Transit Authority

STIP: 2025 - 2029 (D)

Year	MassDOT Project ID	Municipality	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	State Funds	Other Funds	Project Score	FTA Line Item	Other Information
Federal Fiscal Year 2029							$33,113,891	$19,215,326	$12,715,167	$1,183,398			
Worcester Regional Transit Authority							$33,113,891	$19,215,326	$12,715,167	$1,183,398			
2029	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	5307	$1,942,446	$329,431	$329,431				11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2029	WRTA011645		RTA Facility & Vehicle Maintenance	Worcester Regional Transit Authority - Preventive Maintenance	SCA	$1,942,446	$82,358		$82,358			11.7A.00	Preventive Maintenance for WRTA vehicles and facilities.
2029	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	5307	$1,327,284	$225,102	$225,102				44.24.00	On-Call Short-Range Transportation Planning Services
2029	WRTA011646		Technical Assistance	Worcester Regional Transit Authority - Transportation Planning Services	SCA	$1,327,284	$56,275		$56,275			44.24.00	On-Call Short-Range Transportation Planning Services

2) Environmental Justice

Environmental Justice was first noted on the Executive Order 12898 (1994) which mandated all federal agencies to ensure that their programs do not disproportionately cause high and adverse effects on minority and low-income populations and to ensure that all potentially affected populations are allowed full and fair participation in the transportation decision-making process. Moreover, the US DOT Order 5610.2(a) presents DOT policy to consider Environmental Justice in all programs, policies, and activities with the US DOT. The guiding principles in the DOT policy are:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

To carry out the intent of the federal guidance, it was necessary to identify low income and minority communities or neighborhoods in the planning region. The CMMPO updated and approved the current EJ definition in November 2022 to reflect regional characteristics and demographic changes based on the decennial US Census. With the update, the term EJ is now being referred to as Regional Environmental Justice "Plus" (REJ+) Community. A REJ+ community is a designation assigned to block groups with relatively high shares of residents that are especially impacted by changes and or to transportation networks. This designation is "regional" in nature because the socioeconomic characteristics that designate REJ+ status are considered in relation to regional percentiles (through comparing block group characteristics to MPO-level percentiles rather than statewide percentiles); the designation is called "plus" because it includes characteristics beyond traditional "environmental justice" definitions to identify the most dominant factor that defines a community's social vulnerabilities. The definition reads as follows:

- To qualify as an REJ+ community, a block group must meet the following thresholds that correspond to traditional EJ criteria. All data used for this analysis was retrieved from the U.S. Census in which the unit of analysis is census block groups (ACS 2021 5-year estimates)
    - **Income**: Annual median household income $\leq$ MPO 25th percentile.
    - **Race & Ethnicity**: Percent of individuals that identify as Hispanic or Latino; Black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or

Other Pacific Islander; Some other race; or Two or more races and do not identify as White alone ≥ MPO 75th percentile.
    - **Limited English Proficiency (LEP)**: Percent of households with LEP speaking members ≥ MPO 75th percentile.
- While the community characteristics that traditionally define EJ communities to establish areas that are particularly vulnerable to social, economic, and political pressures are relied upon, it is also recognized that these characteristics do not capture other socio-economic contexts that indicate area of high need with respect to transportation issues. Therefore, the "most dominant factor" that drives transportation and accessibility needs in each community is calculated and identified, the following "plus" element characteristics are also included for this determination:
    - **Car Ownership**: Percent of households without an available vehicle ≥ MPO 75th percentile.
    - **Disability**: Percent of households with one or more persons with a disability ≥ MPO 75th percentile.
    - **Age**: Percent of individuals aged 65 or older ≥ MPO 75th percentile.

The REJ+ thresholds were developed for each MPO region to control the regional differences in socio-economic and demographic characteristics across the Commonwealth. The thresholds were calculating the Quartile function in Excel to determine each MPO-specified threshold value within each EJ or "Plus" category. Block group-level values for each characteristic are then compared to their respective MPO thresholds to determine if the block group meets the criteria for REJ+ designation. The following Table 14 shows the CMMPO identified thresholds:

Table 14 – CMMPO REJ+ Thresholds

MPO	Income	Nonwhite	LEP	Disability	Zero-Vehicle	Senior
Central Mass	$60,921	41%	8%	32%	14%	21%

For block groups that are identified as REJ+ communities, the "most dominant" of the six characteristics was identified in terms of the greatest dissimilarity or distance from the MPO threshold. This identification provides a deeper sense of the social contexts that shape local transportation needs. Knowing that an REJ+ community's most dominant factor is a lack of automobile access, or a high proportion of individuals with physical disabilities, or a high share of older individuals, gives a greater insight into the programs, initiatives, or investments that can be made to promote accessibility and mobility for those who may need extra support.

The TIP prioritizes projects that can most effectively and efficiently utilize the limited funding, both federal and state, that is available to the planning region while maintaining financial

constraint. These priorities are derived from the comprehensive public outreach efforts conducted on behalf of the CMMPO, as guided by the CMMPO Advisory Committee and in cooperation with the WRTA Advisory Board.

In the development of the TIP project listings, the prioritization process is based on established Performance Management criteria. Potential federal-aid target-funded projects are evaluated using the criteria along with other critical benchmark data concerning project design status and readiness. During the evaluation process, the CMMPO identifies those projects located within REJ+ communities based on the established EJ definition. These factors are fully considered in the project screening process. In addition, maps are also produced showing the identified REJ+ areas in relation to the projects seeking TIP programming.

The results of the evaluation process, a numeric point scoring, are used to assist in the selection of TIP target projects for programming and eventual endorsement by the CMMPO. Notably, before the eligible projects are considered by the CMMPO, all candidates are thoroughly reviewed by the CMMPO Advisory Committee. The Advisory Committee provides a forum for broad public participation, providing technical and stakeholder commentary and suggesting recommendations to the CMMPO. The Committee's purpose is to bring together representatives from public agencies, elected and appointed officials, transportation providers, environmental interests, technical experts, business persons and other stakeholders that wish to participate directly in the regional transportation planning process. Essentially, the CMMPO Advisory Committee membership consists of both the providers and users of all major modes of transportation. Representatives of REJ+ groups include elder transportation advocates, minority advocates, low-income advocates, citizens-at-large, and neighborhood representatives among others.

It should also be mentioned that the CMMPO staff conducts special meetings when necessary, such as community-targeted "TIP Information Sessions". Further, open public meetings are often held throughout the planning region, tailored to times and locations that maximize the potential for public input and participation. All meetings are held in locations accessible to people with disabilities and language interpreters or translation services are provided on an as needed/requested basis.

Once the various transportation improvement projects identified in REJ+ Communities are programmed on the endorsed CMMPO TIP, staff continues to encourage the project proponents (the host communities, their consultants and MassDOT – Highway Division) to continue to employ additional effective and efficient outreach strategies. These may include, but not limited to, the use of multi-lingual radio announcements on commercial radio frequencies targeting impacted communities, multi-lingual notices in newspapers circulated widely within impacted communities, announcements in newsletters of community-based organizations serving the impacted communities, notices to neighborhood organizations

serving the impacted communities, and any other practical and workable outreach strategy as reflected in the CMMPO's recently updated Public Participation Plan (PPP). Further, MassDOT's "Engage" tool can also be used to identify the languages spoken, community organizations, and accessible meeting locations in a particular project area.

The projects located in identified REJ+ neighborhoods and programmed on the 2025-2029 TIP are included in Tables 15 & 16:

Table 15
Environmental Justice Review
2025-2029 Transportation Improvement Program
Federally Funded Projects Using Target Authority

TIP Year	Hwy Projects Using Federal Target $$		Projects Located in Municipalities with Environmental Justice Neighborhoods		Projects Located in Environmental Justice Neighborhoods		EJ % of Total Federal Target $$
	#	$$	#	$$	#	$$	
		(in millions)		(in millions)		(in millions)	
2025	5	24.719	5	24.719	2	13.279	53.7%
2026	3	14.026	1	5.703	1	5.703	40.7%
2027	4	25.327	3	15.425	2	10.959	43.3%
2028	3	24.611	2	21.235	1	9.564	38.9%
2029	3	31.253	3	31.253	3	31.253	100.0%
Total	**18**	**119.936**	**14**	**98.335**	**9**	**70.758**	**59.0%**

TABLE 16 - TIP Target Projects Located in Neighborhoods of Environmental Justice Concern

Year	PRC#	Municipality	Facility	Description	Cost (in millions)	Funding	Environmental Justice			"Plus" Populations		
							Low-Income	Minority	LEP	Zero-vehicle households	Households with disabilities	Households with pop 65+
2025	608778	Southbridge	Hamilton St/Hook St/Central St/Foster St	Intersection improvements	7.279	STBG / HSIP / CMAQ	Y	Y	Y	Y	Y	Y
2025	608961	Worcester	May St & Chandler St	Intersection improvements	6.000	STBG / HSIP	N	N	Y	N	N	Y
2026	610535	Worcester	Pleasant St	Bike & Ped Improvements	5.703	STBG	Y	N	N	N	N	N
2027	608990	Worcester	Chandler St (Phase 1)	Reconstruction	6.418	HSIP / STBG	Y	Y	Y	Y	Y	N
2027	612011	Worcester	Chandler St (Phase 2)	Reconstruction	4.541	HSIP	Y	Y	Y	Y	Y	N
2028	611988	Oxford	Route 12 (Main St)	Rehabiliation	9.564	STBG	N	N	Y	N	N	N
2029	612779	West Brookfield	Route 9 (Phase 3)	Resurfacing	13.230	STBG	Y	N	N	N	Y	Y
2029	613242	Westborough	Route 30	Roadway Improvements	10.236	STBG	N	Y	Y	N	N	N
2029	613648	Worcester	Lake Ave/Bigelow Davis Pkwy	Intersection improvements	7.785	STBG	N	Y	Y	N	N	N

Maps of these areas which include census block group information are included in Technical Appendix.

Environmental Justice Criteria:

1) Block Groups where the annual median household income is less than or equal to the MPO 25th percentile, CMMPO = $60,921
2) Block Groups with the percentage of minority population is greater than or equal to the MPO 75th percentile, CMMPO = 41%
3) Block Groups with the percentage of LEP speaking members greater or equal to the MPO 75th percentile, CMMPO = 8%
4) Percent of households without an available vehicle greater than or equal to the MPO 75th percentile, CMMPO = 14%
5) Percent of households with one or more persons with a disability greater than or equal to the MPO 75th percentile, CMMPO = 32%
6) Percent of individuals aged 65 or older greater than or equal to the MPO 75th percentile, CMMPO = 21%

3) CMMPO TIP Equity Analysis (2020 – 2029)

The following features a map of the CMMPO region that shows project distribution within the 40 member communities. The analysis includes the most recent 5 years of advertised projects (2020 – 2024) as well as the projects programmed within this current TIP (2025-2029). Project types include bridges, intersections, roadway segments, bikeways, and other multi-modal projects. Both target and statewide projects are included in the analysis. Accompanying the map, Table 17 provides a summary of the total number of projects in each community within each CMMPO transportation planning subregion as well as the total funding (in millions) that was allocated. The number of target projects and associated funding are also shown separately in the analysis.

There was a total of 89 TIP projects, advertised and programmed, between 2020 and 2029. Several projects also included multiple host communities. Funds for these projects were split between each participating community. In addition, there were projects funded by both target and statewide funds. There were 22 communities that had no target projects, 16 communities with no statewide projects, and 13 communities had neither target nor statewide projects. The North and Northeast Subregion had the fewest number of target projects with each a total of three. Over $230 million in federal-aid target funds have been programmed by the CMMPO since 2020. Statewide funds applied to the region during the same timeframe totaled approximately $508 million.

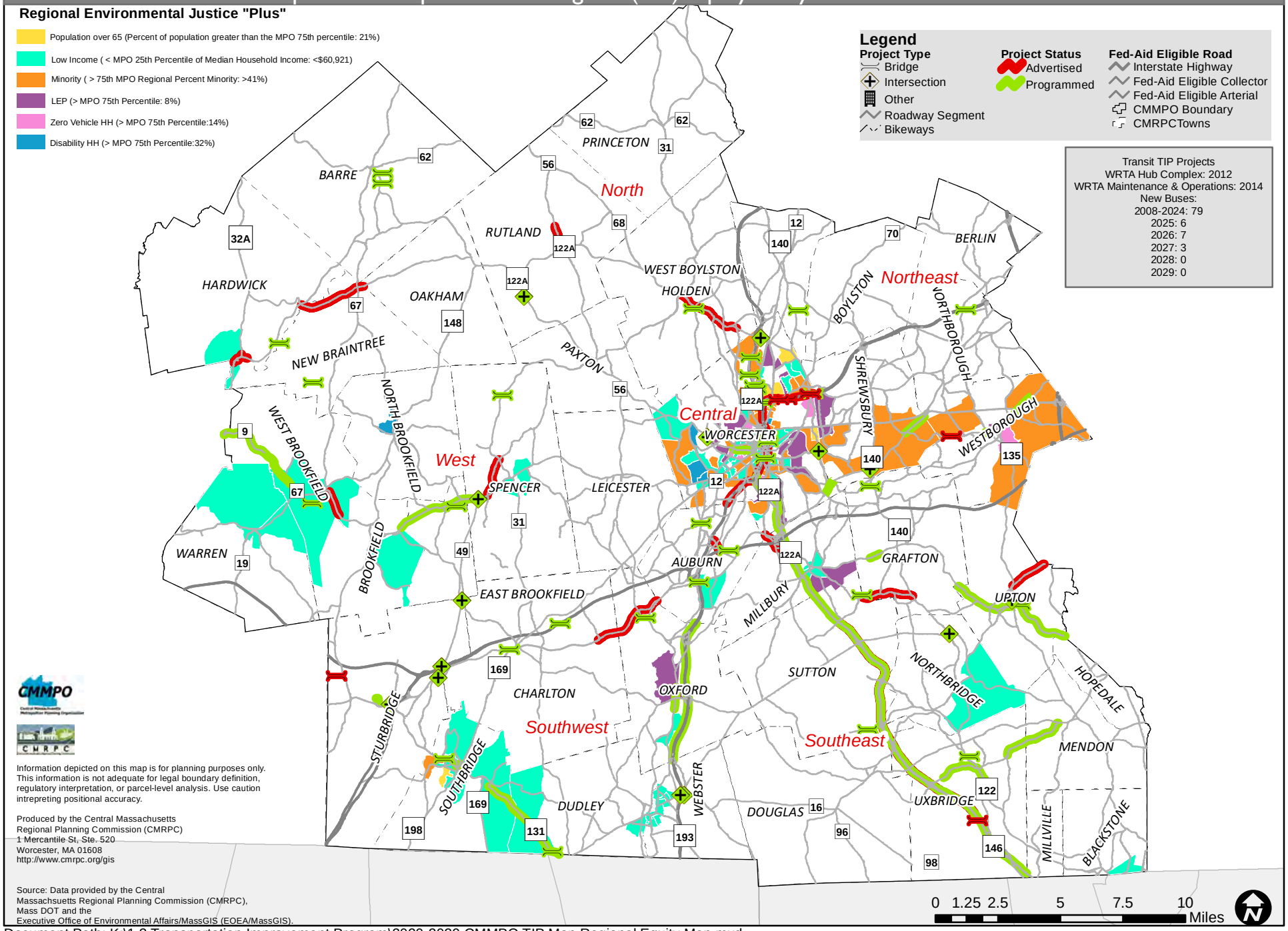
Also shown in the table is the number of projects in each host community that are within an identified REJ+ community. Out of the 89 total TIP projects, 38 of the projects were within an REJ+ community. As such, about half the projects did provide benefit to identified REJ+ populations. The projects benefit these populations by improving the transportation infrastructure for all modal options. By improving bicycle, pedestrian, and transit infrastructure, it allows the households without vehicles, people with disabilities, and the elderly population a better and safer access to essential services. Additionally, projects that help reduce congestion and address air quality issues by reducing the amount of Greenhouse Gases (GHG) are included this these communities. In Worcester, 16 out of the 17 projects were within REJ+ neighborhoods. Of the 72 projects within the five other subregions, 22 were seen to benefit REJ+ populations. About half of the communities in the CMMPO region have REJ+ populations. The established TIP performance-based project evaluation scoring criteria gives a point to projects within an identified REJ+ population neighborhood and a potential additional point to projects in those communities that have had a minimal number of programmed TIP projects over time.

In addition to highway projects, the funding provided through the TIP is also used to purchase new buses, support vehicles, and improve transit infrastructure on an annual basis for the

WRTA. New buses are used on all routes on a rotating schedule to enable all populations within the transit network to have an equal opportunity. New bus shelters and signage are replaced or added where needed along all fixed bus routes. Occasionally, new shuttle services are funded through the TIP to serve various WRTA member communities.

Beyond funding projects through the TIP, there are other transportation-related grant programs available to the region's communities. Some of these opportunities include Workforce Transportation Grants, Shared Streets and Spaces, MassWorks, Complete Streets, Municipal Small Bridge Program, Culvert Replacement Program, and others. These grants can be applied either before or after the implementation of a TIP-funded project. Additionally, there are numerous competitive discretionary grant programs funded through the Bipartisan Infrastructure Law (BIL) that fund various types of transportation projects and activities. Further, there are various projects that are either programmed on the TIP, or attempting to obtain funding through the TIP, that have been awarded grants to improve the roadway or related infrastructure adjacent to the TIP project boundaries. Since the region's annual allocation of TIP funding is limited, communities often need to consider other available funding opportunities to fully address identified needs through improved infrastructure.

2020 - 2029 CMMPO Transportation Improvement Program (TIP) Equity Analysis



Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution intrepreting positional accuracy.

Produced by the Central Massachusetts Regional Planning Commission (CMRPC)
1 Mercantile St, Ste. 520
Worcester, MA 01608
http://www.cmrpc.org/gis

Source: Data provided by the Central Massachsuetts Regional Planning Commission (CMRPC), Mass DOT and the Executive Office of Environmental Affairs/MassGIS (EOEA/MassGIS).

Document Path: K:\1.3 Transportation Improvement Program\2020-2029 CMMPO TIP Map Regional Equity Map.mxd

Table 17 - 2020 – 2029 CMMPO TIP Equity Distribution Analysis

CMRPC Sub-Region	Community	# of Target Projects	Target Funds	Total # of Projects	# of Projects In EJ Area	Total Funds Allocated
Central	Worcester	5	$30.447	12	16	$146.877
North	Barre	0	N/A	2	0	$5.896
	Holden	1	$13.05	3	0	$27.413
	Oakham	0	N/A	0	0	N/A
	Paxton	0	N/A	0	0	N/A
	Princeton	0	N/A	0	0	N/A
	Rutland	2	$10.368	0	0	$10.368
	West Boylston	0	N/A	2	0	$10.541
Northeast	Berlin	0	N/A	0	0	N/A
	Boylston	0	N/A	0	0	N/A
	Northborough	0	N/A	1	0	$2.400
	Shrewsbury	0	N/A	3	3	$55.856
	Westborough	3	$14.677	1	2	$16.791
Southeast	Blackstone	0	N/A	0	0	N/A
	Douglas	0	N/A	0	0	N/A
	Grafton	1	$10.241	3	0	$28.140
	Hopedale	0	N/A	0	0	N/A
	Mendon	0	N/A	1	0	$27.224
	Millbury	1	$11.310	1	1	$13.080
	Millville	0	N/A	0	0	N/A
	Northbridge	1	$4.466	0	0	$4.466
	Sutton	0	N/A	3	0	$21.760
	Upton	2	$6.295	2	0	$19.445
	Uxbridge	2	$20.525	3	0	$27.869
Southwest	Auburn	1	$4.765	5	3	$44.179
	Charlton	0	N/A	4	0	$49.436
	Dudley	0	N/A	2	2	$14.330
	Oxford	1	$9.564	4	2	$64.091
	Southbridge	1	$7.279	2	3	$19.085
	Sturbridge	1	$4.329	3	0	$10.634
	Webster	2	$20.801	0	1	$20.801
West	Brookfield	0	N/A	0	0	N/A
	East Brookfield	0	N/A	1	0	$2.021
	Hardwick	1	$5.031	1	1	$6.894
	Leicester	0	N/A	0	0	N/A
	New Braintree	1	$5.618	2	0	$18.849
	North Brookfield	0	N/A	0	0	N/A
	Spencer	2	$24.493	2	1	$37.166
	Warren	0	N/A	0	0	N/A
	West Brookfield	4	$32.444	2	3	$39.012
Totals		**33**	**$235.973**	**56**	**38**	**$744.894**

4.) Air Quality Conformity Determination FFY 2025-2029 State Transportation Improvement Program

This section documents the latest air quality conformity determination for the 1997 ozone National Ambient Air Quality Standards (NAAQS) in the Commonwealth of Massachusetts. It covers the applicable conformity requirements according to the latest regulations, regional designation status, legal considerations, and federal guidance. Further details and background information are provided below:

Introduction

The 1990 Clean Air Act Amendments (CAAA) require metropolitan planning organizations within nonattainment and maintenance areas to perform air quality conformity determinations prior to the approval of Long-Range Transportation Plans (LRTPs) and Transportation Improvement Programs (TIPs), and at such other times as required by regulation. Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones (42 U.S.C. 7506(c)(1)). EPA's transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, transportation improvement programs (TIPs), and federally supported highway and transit projects conform to the SIP (40 CFR Parts 51.390 and 93).

A nonattainment area is one that the U.S. Environmental Protection Agency (EPA) has designated as not meeting certain air quality standards. A maintenance area is a nonattainment area that now meets the standards and has been re-designated as maintaining the standard. A conformity determination is a demonstration that plans, programs, and projects are consistent with the State Implementation Plan (SIP) for attaining air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

Legislative and Regulatory Background

The entire Commonwealth of Massachusetts was previously classified as nonattainment for ozone and was divided into two nonattainment areas. The Eastern Massachusetts ozone nonattainment area included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties. Berkshire, Franklin, Hampden, and Hampshire counties comprised the Western Massachusetts ozone nonattainment area. With these

classifications, the 1990 Clean Air Act Amendments (CAAA) required the Commonwealth to reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), the two major precursors to ozone formation to achieve attainment of the ozone standard.

The 1970 Clean Air Act defined a one-hour national ambient air quality standard (NAAQS) for ground-level ozone. The 1990 CAAA further classified degrees of nonattainment of the one-hour standard based on the severity of the monitored levels of the pollutant. The entire commonwealth of Massachusetts was classified as being in serious nonattainment for the one-hour ozone standard, with a required attainment date of 1999.The attainment date was later extended, first to 2003 and a second time to 2007.

In 1997, the EPA proposed a new, eight-hour ozone standard that replaced the one- hour standard, effective June 15, 2005. Scientific information has shown that ozone could affect human health at lower levels, and over longer exposure times than one hour. The new standard was challenged in court, and after a lengthy legal battle, the courts upheld it. It was finalized in June 2004.The eight-hour standard is 0.08 parts per million, averaged over eight hours and not to be exceeded more than once per year. Nonattainment areas were again further classified based on the severity of the eight-hour values. Massachusetts as a whole was classified as being in moderate nonattainment for the eight-hour standard and was separated into two nonattainment areas—Eastern Massachusetts and Western Massachusetts.

In March 2008, EPA published revisions to the eight-hour ozone NAAQS establishing a level of 0.075 ppm, (March 27, 2008; 73 FR 16483). In 2009, EPA announced it would reconsider this standard because it fell outside of the range recommended by the Clean Air Scientific Advisory Committee. However, EPA did not take final action on the reconsideration so the standard would remain at 0.075 ppm.

After reviewing data from Massachusetts monitoring stations, EPA sent a letter on December 16, 2011, proposing that only Dukes County would be designated as nonattainment for the new proposed 0.075 ozone standard. Massachusetts concurred with these findings.

On May 21, 2012, (77 FR 30088), the final rule was published in the Federal Register, defining the 2008 NAAQS at 0.075 ppm, the standard that was promulgated in March 2008. A second rule published on May 21, 2012 (77 FR 30160), revoked the 1997 ozone NAAQS to occur one year after the July 20, 2012, effective date of the 2008 NAAQS.

Also on May 21, 2012, the air quality designations areas for the 2008 NAAQS were published in the Federal Register. In this Federal Register, the only area in Massachusetts that was designated as nonattainment is Dukes County. All other Massachusetts counties were designated as attainment/unclassified for the 2008 standard. On March 6, 2015, (80 FR 12264, effective April 6, 2015) EPA published the Final Rulemaking, “Implementation of the 2008 National Ambient Air Quality Standards (NAAQS) for Ozone: State Implementation Plan

Requirements; Final Rule." This rulemaking confirmed the removal of transportation conformity to the 1997 Ozone NAAQS and the replacement with the 2008 Ozone NAAQS, which (with actually a stricter level of allowable ozone concentration than the 1997 standards) classified Massachusetts as "Attainment/unclassifiable" (except for Dukes County).

However, on February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA* ("*South Coast II*," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone NAAQS and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. Conformity determinations are required in these areas after February 16, 2019. On November 29, 2018, EPA issued *Transportation Conformity Guidance for the South Coast II Court Decision* (EPA-420-B-18-050, November 2018) that addresses how transportation conformity determinations can be made in these areas. According to the guidance, both Eastern and Western Massachusetts, along with several other areas across the country, are now defined as "orphan nonattainment areas" – areas that were designated as nonattainment for the 1997 ozone NAAQS at the time of its revocation (80 FR 12264, March 6, 2015) and were designated attainment for the 2008 ozone NAAQS in EPA's original designations rule for this NAAQS (77 FR 30160, May 21, 2012).

Current Conformity Determination

After 2/16/19, as a result of the court ruling and the subsequent federal guidance, transportation conformity for the 1997 NAAQS – intended as an "anti-backsliding" measure – now applies to both of Massachusetts' orphan areas. Therefore, a conformity determination was made for the 1997 ozone NAAQS on the 2020-2040 Regional Transportation Plans. This conformity determination was finalized in July 2019 following each MPO's previous endorsement of their regional transportation plan and approved by the Massachusetts Divisions of FHWA and FTA on October 13, 2023. This conformity determination continues to be valid for the FFY 2025 - 2029 State Transportation Improvement Program and each MPOs' FFY 2025 – 2029 Transportation Improvement Program, as each is developed from the conforming 2024-2050 Regional Transportation Plans.

The transportation conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for TIPs and RTPs include: latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), and emissions budget and/or interim emissions (93.118 and/or 93.119).

For the 1997 ozone NAAQS areas, transportation conformity for TIPs and RTPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the

effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the *South Coast II* court upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, or budget or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS for the FFY 2025-2029 State Transportation Improvement Program, Transportation Improvement Programs, and 2024-2050 Regional Transportation Plans can be demonstrated by showing that remaining requirements in Table 1 in 40 CFR 93.109 have been met. These requirements, which are laid out in Section 2.4 of EPA's guidance and addressed below, include:

- Latest planning assumptions (93.110)
- Consultation (93.112)
- Transportation Control Measures (93.113)
- Fiscal Constraint (93.108)

Latest Planning Assumptions:

The use of latest planning assumptions in 40 CFR 93.110 of the conformity rule generally apply to regional emissions analysis. In the 1997 ozone NAAQS areas, the use of latest planning assumptions requirement applies to assumptions about transportation control measures (TCMs) in an approved SIP (See following section on Timely Implementation of TCMs).

Consultation:

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation. Interagency consultation was conducted with FHWA, FTA, US EPA Region 1, MassDEP, and the Massachusetts MPOs on March 6, 2019 to discuss the latest conformity-related court rulings and resulting federal guidance. Regular and recurring interagency consultations have been held since on an (at least) annual schedule, with the most recent conformity consultation held on September 13, 2023. This ongoing consultation is conducted in accordance with the following:

- Massachusetts' Air Pollution Control Regulations 310 CMR 60.03 "Conformity to the State Implementation Plan of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 USC or the Federal Transit Act"
- The Commonwealth of Massachusetts Memorandum of Understanding among the Massachusetts Department of Transportation, Massachusetts Department of Environmental Protection, Massachusetts Metropolitan Planning Organizations, and Regional Transit Authorities, titled The Conduct of Air Quality Planning and Coordination for Transportation Conformity (dated September 16, 2019)

Public consultation was conducted consistent with planning rule requirements in 23 CFR 450.

Title 23 CFR Section 450.324 and 310 CMR 60.03(6)(h) requires that the development of the TIP, RTP, and related certification documents provide an adequate opportunity for public review and comment. Section 450.316(b) also establishes the outline for MPO public participation programs. Each MPO's Public Participation Plan ensures that the public will have access to the TIP/RTP and all supporting documentation, provides for public notification of the availability of the TIP/RTP and the public's right to review the document and comment thereon, and provides a 21-day public review and comment period prior to the adoption of the TIP/RTP and related certification documents.

Timely Implementation of Transportation Control Measures:

Transportation Control Measures (TCMs) have been required in the SIP in revisions submitted to EPA in 1979 and 1982. All SIP TCMs have been accomplished through construction or through implementation of ongoing programs. All of the projects have been included in the Region's Transportation Plan (present or past) as recommended projects or projects requiring further study.

Fiscal Constraint:

Transportation conformity requirements in 40 CFR 93.108 state that TIPs and transportation plans and must be fiscally constrained consistent with DOT's metropolitan planning regulations at 23 CFR part 450. The 2025-2029 State Transportation Improvement Program and 2024-2050 Regional Transportation Plans are fiscally constrained, as demonstrated in this document.

In summary and based upon the entire process described above, the Commonwealth has prepared this conformity determination for the 1997 Ozone NAAQS in accordance with EPA's and Massachusetts' latest conformity regulations and guidance. This conformity determination process demonstrates that the FFY 2025-2029 State Transportation Improvement Program and the 2024-2050 Regional Transportation Plans meet the Clean Air Act and Transportation Conformity Rule requirements for the 1997 Ozone NAAQS and have been prepared following all the guidelines and requirements of these rules during this time period.

Therefore, the implementation of the MPO's FFY 2025-2029 State Transportation Improvement Program and the 2024-2050 Regional Transportation Plans are consistent with the air quality goals of, and in conformity with, the Massachusetts State Implementation Plan.

5.) Status of FFY 2024 Projects: Highway & Transit

Tables 18 & 19 in this section provide details of the FFY 2024 highway and transit projects that are currently programmed. Table 18 includes the FFY 2024 highway projects. The information included in the table is the Project ID#, Community, Project Description, Project Cost, Funding Sources, and the Current Status of the project. Table 19 includes the FFY 2024 transit projects. The information included in this table is the Project Description, Project ID#, Federal Program Name, Obligation Date, Programmed Federal Funds, Obligated Federal Funds, Remaining Balance, and Grant/Contract #.

Table 18 - Status of FFY 2024 Highway Projects

Project #	Community	Description	Project Cost	Funding	Current Status
Regional Target Projects					
606517	West Brookfield	Resurfacing & Related Work on Route 9, Phase I	$8,087,374	STBG / TAP	PS&E was received on 1/24/24
608171	Uxbridge	Reconstruction on Route 122 (South Main St)	$10,624,014	STBG / TAP	100% Design received on 7/27/23
608433	Webster	Intersection Improvements at I-395, Route 16 & Sutton Rd	$7,617,000	STBG / CMAQ	100% Design as of 10/5/23
S12816	Southbridge	Public Transportation Multi-Media Communications Campaign	$20,000	CMAQ	
S12815	Ware	Purchase of Hybrid Minivan for QVCDC	$75,000	CMAQ	Flexed to FTA
Statewide Projects					
609179	Spencer	Bridge Replacement, S-23-012, Route 31 over Seven Mile River	$3,323,151	HIP-BR	PS&E as of 1/9/24
612874	Shrewsbury / Worcester	Bridge Maintenance, S14-021=W-44-115, I-290 over Combination of Lake Quinsigamond & Lake Avenue North	$1,302,740	HIP-BR	Project moved to 2025 due to scope change.
613179	Worcester	Bridge Preservation, W-44-117, Ararat Street over I-190	$3,600,000	HIP-BR	100% Design as of 1/29/24
613180	Northborough	Bridge Preservation, N-20-025, I-290 over MDC Aqueduct & CSX RR	$2,400,000	HIP-BR	Preliminary Design Stage
612098	Grafton / Upton	Resurfacing & Related Work on Route 140	$5,100,000	NHPP	100% Design as of 2/12/24
608640	Grafton / Sutton	Bridge Reconstruction / Rehabilitation, S-33-004, Depot Street over Blackstone River	$12,380,610	STBG-BR-Off	100% Design as of 1/25/24

Project #	Community	Description	Project Cost	Funding	Current Status
612087	Auburn / Oxford	Resurfacing & Related Work on I-290 & I-395	$5,980,000	NHPP-I	Advertised on 12/30/23.
602659	Charlton / Oxford	Reconstruction on Route 20, Includes Rehab of C-06-023 & Replacement of O-06-002	$8,079,873	CMAQ / NHPP	Project is AC'd between 2022 & 2025. Advertised on 4/23/22.
608814	Spencer	Resurfacing & Related Work on Route 9	$9,350,178	NHPP	PS&E as of 1/22/24
609528	Grafton	Millbury Street Improvements (SRTS)	$1,931,230	TAP	PS&E as of 2/21/24
608433	Webster	Intersection Improvements at I-395, Route 16 & Sutton Rd	$7,328,008	HSIP	100% Design as of 10/5/23
606517	West Brookfield	Resurfacing & Related Work on Route 9, Phase I	$1,574,365	TAP	PS&E was received on 1/24/24

Table 19
Worcester Regional Transit Authority
Status of FFY 2024 Transit Projects
(10/1/23 - 9/30/24)

Project	Project Number	Federal Program Name	Obligation Date	Fed. Funds Programmed in FFY 2024 TIP	Fed. Funds Obligated in FFY 2024	Remaining Balance	Grant/Contract Number
OPERATING ASSISTANCE - FIXED ROUTE & PARATRANSIT	RTD0010854	5307		$ 10,066,359	$ -	$ 10,066,359	
BUY REPLACEMENT 35 FT BUS (6)	RTD0010855	5307		$ 8,189,019	$ -	$ 8,189,019	
BUY REPLACEMENT 35 FT BUS (1)	RTD0010855	5339		$ 530,981	$ -	$ 530,981	
BUY REPLACEMENT SUPPORT VEHICLES (2)	RTD0010856	5307		$ 120,000	$ -	$ 120,000	
PURCHASE SUPPORT EQUIPMENT FOR FIXED ROUTE AND DEMAND RESPONSE	RTD0010857	5307	7/18/2023	$ 520,813	$ 520,813	$ -	MA-2023-025-01
PURCHASE SPARE PARTS FOR REVENUE ROLLING STOCK	RTD0010858	5307	7/18/2023	$ 436,848	$ 436,848	$ -	MA-2023-025-01
PURCHASE FIXED ROUTE BUS SHELTERS	RTD0010861	5307	7/18/2023	$ 28,044	$ 28,044	$ -	MA-2023-025-01
RENOVATIONS AND MAINTENANCE TO WRTA HUB	RTD0010863	5307		$ 8,000	$ -	$ 8,000	
CITY OF WORCESTER: REHABILITATION OF UNION STATION	RTD0010864	5337		$ 4,539,941	$ -	$ 4,539,941	
RENOVATIONS AND MAINTENANCE TO WRTA MAINTENANCE AND OPERATIONS FACILITY	RTD0010878	5307	7/18/2023	$ 40,000	$ 40,000	$ -	MA-2023-025-01
PURCHASE REPLACEMENT VANS (10)	T00042	5307		$ 1,800,000	$ -	$ 1,800,000	
ON-CALL (SHORT TERM) PLANNING SERVICES	WRTA011642	5307		$ 200,000	$ -	$ 200,000	
PREVENTATIVE MAINTENANCE FOR WRTA VEHICLES AND FACILITIES	WRTA011643	5307		$ 404,800	$ -	$ 404,800	
TOWN OF SHREWSBURY - CTGP SHREWSBURY OPERATING	WRTA011658	5310		$ 25,000	$ -	$ 25,000	
WRTA - HOLDEN TO WORCESTER EXTENDED SERVICE HOURS	WRTA011661	5310		$ 10,000	$ -	$ 10,000	
TOWN OF RUTLAND - RUTLAND EXTENDED TRANSPORTATION	WRTA011686	5310		$ 75,477		$ 75,477	
WRTA - SCM ELDERBUS - READYBUS SERVICE	WRTA011687	5310		$ 45,000		$ 45,000	
WRTA - SCM ELDERBUS MIDDAY SHUTTLE	WRTA011688	5310		$ 17,000	$ -	$ 17,000	
			Total:	**$27,057,282**	**$1,025,705**	**$ 26,031,577**	

Part C: Regional Transportation Projects Information

The first part of this section includes the Greenhouse Gas (GHG) tracking results for 2025 to 2029 highway and transit projects. Following the GHG results, there is a listing of regionally significant projects and a summary of advanced construction. Lastly, the summary of the Highway Safety Improvement Program projects is listed for 2025 to 2029.

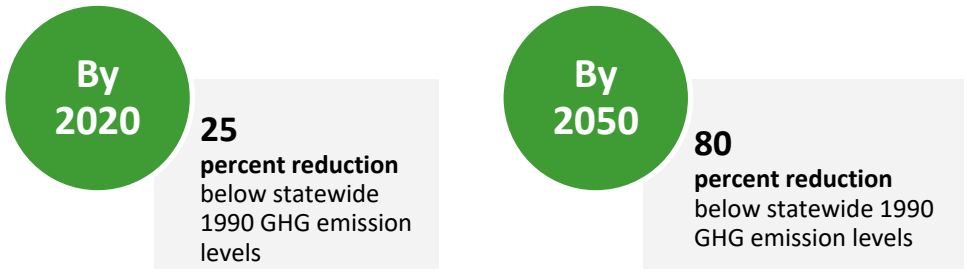
1. **Greenhouse Gas (GHG) Tracking in the Central Massachusetts Planning Region: Highway & Transit**
2. **Listing of Regionally Significant Projects**
3. **Advanced Construction**
4. **Highway Safety Improvement Program**

1) 2025 – 2029 Transportation Improvement Program Greenhouse Gas Monitoring and Evaluation

This section summarizes the Greenhouse Gas (GHG) impacts that are anticipated to result from the projects that are included in this FFY 2025 – 2029 Transportation Improvement Program (TIP). It includes a summary of the state laws and policies that call for reducing greenhouse gas to mitigate global climate change; actions that respond to these state laws and policies; the role of regional planning and TIP development in reducing GHG emission and tracking these reductions; and the projected GHG emission impacts from the projects programmed in the TIP.

State Policy Context

The Global Warming Solutions Act (GWSA), which was signed into law in August 2008, makes Massachusetts a leader in setting aggressive and enforceable GHG reduction targets, and implementing policies and initiatives to achieve these targets. In keeping with the law, on December 29, 2010 the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), in consultation with other state agencies and the public, released the Massachusetts Clean Energy and Climate Plan for 2020. In December 2014, DEP issued new regulations that require Metropolitan Planning Organizations to quantify impacts from project investments, track progress towards reductions, and consider impacts in the prioritization of project investments. The targets for overall statewide GHG emissions are:



The Role of MPOs

The Commonwealth's CMPs are integrally involved in supporting the GHG reductions mandated under the GWSA. The MPOs are most directly involved in helping to achieve the GH emission reductions through the promotion of healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle, and pedestrian investments – and assisting smart growth development patterns through the creation of a balanced multi-modal transportation system. This is realized through the transportation goals and policies espoused in the 2024 Regional Transportation Plans (RTPs); the major projects planned in those RTPs; and the mix of new transportation projects that are programmed and implemented

through the TIPs. GHG tracking and evaluation processes enable the MPOs to identify anticipated GHG impacts of planned and programmed projects, and to use GHG impacts as a criterion in prioritizing transportation projects.

Project-Level GHG Tracking and Evaluation in the Transportation Improvement Program

It is also important to monitor and evaluate the GHG impacts of the transportation projects that are programmed in the MPOs' TIP. The TIPs include both the larger, regionally-significant projects from the RTPs, which are reported in the Statewide GHG report, as well as smaller projects that are not included in the RTP but that may nevertheless have impacts on GHG emissions. The primary objective of this tracking is to enable the MPOs to evaluate expected GHG impacts of different projects and to use this information as a criterion for prioritizing and programming projects.

Calculation of GHG Impacts for TIP Projects

MassDOT has adopted spreadsheets used by the MPOs to determine CMAQ eligibility and that also include CO2 impacts. The data and analysis required for these calculations is available from functional design reports that are submitted for projects that would produce a measurable GHG impact. The Mobile Source Emission Factors are used to calculate the emissions savings.

Projects with Quantified Impacts

RTP Projects: Major capacity expansion projects are expected to have a significant impact on GHG emissions. These projects are included in each MPO's RTPs and analyzed using either the statewide model or the Boston MPO's regional model, which reflect GHG impacts. As a result, no independent TIP calculations are required.

Quantified Decrease in Emissions: For those projects that are expected to produce a measurable decrease in emissions, the approach for calculating these impacts is described below. These projects are categorized in the following manner:

- **Quantified Decrease in Emissions from Traffic Operational Improvement** – An intersection reconstruction or signalization project that is projected to reduce delay and congestion.
- **Quantified Decrease in Emissions from Pedestrian and Bicycle Infrastructure** – A shared-use path that enables increased walking and biking and decreases vehicle-miles traveled (VMT).
- **Quantified Decrease in Emissions from New/Additional Transit Service** – A bus or shuttle service that enables increased transit ridership and decreased VMT.
- **Quantified Decrease in Emissions from a Park and Ride Lot** – A park and ride lot that enables increased transit ridership/ increased ridesharing and decreased VMT.

- **Quantified Decrease in Emissions from Complete Streets Improvements** – Improvements to roadway networks that include the addition of bicycle and pedestrian accommodations where none were present before.
- **Quantified Decrease in Emissions from Alternative Fuel Vehicle Procurements** – A vehicle procurement where alternative fuel/advanced technology vehicles replace traditional gas or diesel vehicles.
- **Quantified Decrease in Emissions from Anti-Idling Strategies –** Implementation of policies such as limiting idling allowed, incorporating anti-idling technology into fleets, and using LED lights on trucks for the purpose of illuminating worksites.
- **Quantified Decrease in Emissions from Bike Share Projects –** A new bike share project or capacity added to an existing project.
- **Quantified Decrease in Emissions from Induced Travel Projects –** A project that changes roadway capacity.
- **Quantified Decrease in Emissions from Speed Reduction Programs –** Programs that reduce speed to no less than 55 miles per hour.
- **Quantified Decrease in Emissions from Transit Signal Priority Projects –** A project that applies this technology to a signal intersection or along a corridor that impacts bus service.
- **Quantified Decrease in Emissions from Truck Stop Electrification Projects –** A new truck stop electrification project or capacity added to an existing project.
- **Quantified Decrease in Emissions from Other Improvement**

Quantified Increase in Emission: Projects expected to produce a measurable increase in emissions.

Projects with No Assumed Impacts

No Assumed Impact/Negligible Impact on Emissions: Projects that do not change the capacity or use a facility (e.g. roadway median barrier or retaining wall replacement, or a bridge rehabilitation/replacement that restores the bridge to its previous condition) are assumed to have no/negligible GHH impact.

Qualitative Decrease in Emissions: Projects expected to produce a minor decrease in emissions that cannot be calculated with any precision. Examples of such projects include roadway repaving, signage improvement, ITS improvement, or transit marketing/customer experience improvement.

Qualitative Increase in Emissions: Projects expected to produce a minor increase in emissions that cannot be calculated with any precision.

Greenhouse Gas Impact Tables for FFY 2025 – 2029 TIP

The tables summarizing the calculated quantitative and assumed qualitative impacts of the projects included in the regional FFY 2025 – 2029 TIP are found on the following pages.

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Central Mass					
602659	CHARLTON- OXFORD- RECONSTRUCTION ON ROUTE 20, FROM RICHARDSON'S CORNER EASTERLY TO ROUTE 12, INCLUDES REHAB OF C-06-023 & REPLACEMENT OF O-06-002	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	204,865	Emissions reduction also includes bike & pedestrian infrastructure. Consultation committee: 03/03/2019
608778	SOUTHBRIDGE- INTERSECTION IMPROVEMENTS AT CENTRAL STREET, FOSTER STREET, HOOK STREET AND HAMILTON STREET	Quantified	Quantified Decrease in Emissions from Complete Streets Project	4,357	Consultation Committee: 04/26/2021
608961	WORCESTER- INTERSECTION IMPROVEMENTS ON CHANDLER STREET AND MAY STREET	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	47,074	Consultation Committee: 09/13/2023
609049	WEST BROOKFIELD- RESURFACING & RELATED WORK ON ROUTE 9, FROM 850' WEST OF WELCOME ROAD TO PIERCE ROAD (1 MILE - PHASE II)	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	87	
609185	WORCESTER- BRIDGE RECONSTRUCTION OF W-44-083, HARRISON STREET OVER I-290 & W-44-093, LAUREL STREET OVER I-290	Qualitative	No assumed impact/negligible impact on emissions	0	
610717	UXBRIDGE TO WORCESTER- GUIDE AND TRAFFIC SIGN REPLACEMENT ON A SECTION OF ROUTE 146	Qualitative	No assumed impact/negligible impact on emissions	0	
610769	SUTTON- SUPERSTRUCTURE REPLACEMENT, S-33-002, MANCHAUG ROAD OVER MUMFORD RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
612190	HOLDEN- BRIDGE REPLACEMENT, H-18-004, SALISBURY STREET OVER PW RAILROAD	Qualitative	No assumed impact/negligible impact on emissions	0	
612195	WORCESTER- SUPERSTRUCTURE REPLACEMENT, W-44-091, I-290 OVER EAST CENTRAL STREET	Qualitative	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Central Mass					
612608	WORCESTER- FLOOD RELIEF ON ROUTE 20, GRAFTON STREET (ROUTE 122) INTERCHANGE TO FLINT POND	Qualitative	No assumed impact/negligible impact on emissions	0	
612874	SHREWSBURY- WORCESTER- BRIDGE PRESERVATION, S-14-021=W-44-115 (1RA & 1RB), I-290 (EB AND WB) OVER COMBINATION OF LAKE QUINSIGMOND AND LAKE AVENUE NORTH	Qualitative	No assumed impact/negligible impact on emissions	0	
613208	WORCESTER- CLEANING & PAINTING OF BRIDGES ON I-190: W-44-124 (1XF, 1XG), W-44-126 (1XJ, 1XK), W-44-127 (1XL), W-44-132 (1XN, 1XP), AND W-44-133 (1XQ, 1XR)	Qualitative	No assumed impact/negligible impact on emissions	0	
S12936	WORCESTER - PURCHASE OF NEW BICYCLE RACKS	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	19,666	Consultation Committee: 02/20/2024
S12938	CMMPO PROJECT DESIGN FUNDING PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
Central Mass			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	276,049	
			Total GHG Difference (kg/year)	276,049	
2025			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	276,049	
			Total GHG Difference (kg/year)	276,049	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Central Mass					
608456	UPTON- CULVERT REPLACEMENT, MILFORD STREET (ROUTE 140) OVER UNNAMED TRIBUTARY TO CENTER BROOK	Qualitative	No assumed impact/negligible impact on emissions	0	
608490	UPTON- RESURFACING AND RELATED WORK ON ROUTE 140 AND ROUNDABOUT CONSTRUCTION AT ROUTE 140, CHURCH STREET AND GROVE STREET	Qualitative	Qualitative Decrease in Emissions	0	
608491	MENDON- RESURFACING AND RELATED WORK ON ROUTE 16	Qualitative	Qualitative Decrease in Emissions	0	
608862	SOUTHBRIDGE- BRIDGE REPLACEMENT, S-21-009, MILL STREET OVER MCKINSTRY BROOK & S-21-003, MILL STREET OVER THE QUINEBAUG RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
609186	DUDLEY- BRIDGE REPLACEMENT, D-12-026, STATE ROUTE 131 OVER THE QUINEBAUG RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
610535	WORCESTER- PEDESTRIAN AND BICYCLE IMPROVEMENTS ON PLEASANT STREET	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	50,010	
611933	STURBRIDGE- ROUNDABOUT CONSTRUCTION AT THE INTERSECTION OF ROUTE 20 AND ROUTE 131	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
612084	BARRE- BRIDGE REPLACEMENT, B-02-004, OLD COLDBROOK ROAD OVER PRINCE RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
612092	UXBRIDGE- BRIDGE REPLACEMENT, U-02-051, HOMEWARD AVENUE OVER PROVIDENCE WORCESTER RAILROAD	Qualitative	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Central Mass					
612192	AUBURN- BRIDGE REPLACEMENT, A-17-038, US 20 (WB) WASHINGTON STREET OVER I-395	Qualitative	No assumed impact/negligible impact on emissions	0	
612893	STURBRIDGE- IMPROVEMENTS AT BURGESS ELEMENTARY SCHOOL (SRTS)	Qualitative	Qualitative Decrease in Emissions	0	
S12937	CMMPO LRTP MICRO-PROJECTS PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
S12939	CMMPO Project Design Funding Program	Qualitative	No assumed impact/negligible impact on emissions	0	
Central Mass			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	50,010	
			Total GHG Difference (kg/year)	50,010	
2026			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	50,010	
			Total GHG Difference (kg/year)	50,010	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2027					
Central Mass					
605323	OXFORD- BRIDGE REPLACEMENT, O-06-030, (ST 56) LEICESTER ROAD OVER THE FRENCH RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
608990	WORCESTER- INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM MAIN STREET TO QUEEN STREET	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
609441	NORTHBRIDGE- INTERSECTION IMPROVEMENTS AT ROUTE 122 (PROVIDENCE ROAD), SCHOOL STREET, SUTTON STREET, AND UPTON STREET	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
610931	UXBRIDGE- REHABILITATION OF ROUTE 16 (DOUGLAS STREET), FROM TAFT HILL ROAD TO 200 FT WEST ON MAIN STREET	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
611967	STURBRIDGE- CHARLTON- INTERSECTION IMPROVEMENTS ON ROUTE 49 AT PUTNAM ROAD, WALKER POND ROAD & ROUTE 20	Qualitative	No assumed impact/negligible impact on emissions	0	
612011	WORCESTER- INTERSECTION IMPROVEMENTS AND RESURFACING ON CHANDLER STREET, FROM QUEEN STREET TO PARK AVENUE	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
612089	DUDLEY- SOUTHBRIDGE- RESURFACING AND RELATED WORK ON ROUTE 131	Qualitative	No assumed impact/negligible impact on emissions	0	
612181	CHARLTON- BRIDGE REPLACEMENT, C-06-019, US 20 STURBRIDGE ROAD OVER CADY BROOK	Qualitative	No assumed impact/negligible impact on emissions	0	
612191	AUBURN- BRIDGE REPLACEMENT, A-17-003, OXFORD STREET OVER KETTLE BROOK	Qualitative	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2027					
Central Mass					
612510	GRAFTON- BRIDGE REPLACEMENT, G-08-020, (SR 140) SHREWSBURY STREET OVER MBTA/CSX RAILROAD	Qualitative	No assumed impact/negligible impact on emissions	0	
613143	WEST BROOKFIELD- BRIDGE REPLACEMENT, W-19-002 (187), LONG HILL ROAD OVER QUABOAG RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
613183	WORCESTER- BRIDGE PRESERVATION, W-44-100 (1KH), W-44-101 (1TG) AND W-44-138 (1TQ), I-190 & I-290 INTERCHANGE	Qualitative	No assumed impact/negligible impact on emissions	0	
613367	WESTBOROUGH- FISHER STREET IMPROVEMENTS (SRTS)	Qualitative	Qualitative Decrease in Emissions	0	
S12940	CMMPO LRTP MICRO-PROJECTS PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
S12941	CMMPO PROJECT DESIGN FUNDING PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
Central Mass			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2027			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2028					
Central Mass					
607764	SHREWSBURY- INTERSECTION & SIGNAL IMPROVEMENT AT US 20 (HARTFORD TURNPIKE) AT GRAFTON STREET	Qualitative	No assumed impact/negligible impact on emissions	0	
608334	CHARLTON- BRIDGE REHABILIATION, C-06-040, NORTHSIDE ROAD OVER I-90	Qualitative	No assumed impact/negligible impact on emissions	0	
611988	OXFORD- ROADWAY REHABILITATION ON ROUTE 12 (MAIN STREET)	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of he design.
613097	SPENCER- INTERSECTION IMPROVEMENTS AT ROUTE 9 AND ROUTE 49	Qualitative	Qualitative Decrease in Emissions	0	GHG Impacts will be quantified in the future pending the progress of the design.
613126	EAST BROOKFIELD- BRIDGE SUPERSTRUCTURE REPLACEMENT, E-02-005, COVE STREET OVER SEVEN MILE RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
613655	RUTLAND- INTERSECTION IMPROVEMENTS AT ROUTE 122 AND PLEASANTDALE ROAD	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
S12942	CMMPO LRTP MICRO-PROJECTS PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
S12943	CMMPO PROJECT DESIGN FUNDING PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
Central Mass			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2028			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2029					
Central Mass					
610825	SHREWSBURY- REHABILITATION & BOX WIDENING ON ROUTE 20, FROM ROUTE 9 TO SOUTH STREET	Qualitative	Qualitative Decrease in Emissions	0	
612779	WEST BROOKFIELD- RESURFACING & RELATED WORK ON ROUTE 9 (PHASE III)	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
613242	WESTBOROUGH- ROADWAY IMPROVEMENTS ON ROUTE 30 (EAST MAIN STREET), FROM HASTINGS ELEMENTARY TO THOMAS NEWTON DRIVE	Qualitative	Qualitative Decrease in Emissions	0	GHG Impacts will be quantified in the future pending the progress of the design.
613290	WEST BOYLSTON- BRIDGE REHABILITATION, W-17-006 (22U), HARTWELL STREET OVER B&M RAILROAD	Qualitative	No assumed impact/negligible impact on emissions	0	
613291	AUBURN- BRIDGE REPLACEMENT, A-17-050 (4KH), BANCROFT STREET OVER I-90	Qualitative	No assumed impact/negligible impact on emissions	0	
613293	NEW BRAINTREE- BRIDGE REHABILITATION, N-07-004 (185), BARR ROAD OVER MEADOW BROOK	Qualitative	No assumed impact/negligible impact on emissions	0	
613303	BARRE- BRIDGE REPLACEMENT, B-02-003 (16K), VALLEY ROAD OVER PRINCE RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	
613648	WORCESTER- INTERSECTION IMPROVEMENTS AT LAKE AVENUE AND BIGELOW DAVIS PARKWAY (FORMERLY HAMILTON STREET)	Qualitative	Qualitative Decrease in Emissions	0	GHG impacts will be quantified in the future pending the progress of the design.
S12944	CMMPO LRTP MICRO-PROJECTS PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	
S12945	CMMPO PROJECT DESIGN FUNDING PROGRAM	Qualitative	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Highway

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2029					
Central Mass					
Central Mass			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2029			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2025 - 2029			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	326,059	
			Total GHG Difference (kg/year)	326,059	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Worcester Regional Transit Authority					
RTD0010854	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010855	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	Quantified	Quantified Decrease in Emissions from Bus Replacement	0	A total of 23 new electric buses will be purchased over 4 years. GHG savings listed in final purchase year.
RTD0010856	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010857	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010858	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010861	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010863	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010864	City of Worcester: Rehabilitation of Union Station	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010878	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	Qualitative	No assumed impact/negligible impact on emissions	0	
WRTA011645	Worcester Regional Transit Authority - Preventive Maintenance	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011646	Worcester Regional Transit Authority - Transportation Planning Services	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011647	Worcester Regional Transit Authority - Bus Stop Signage	Not Applicable	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Worcester Regional Transit Authority					
WRTA011648	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	Not Applicable	No assumed impact/negligible impact on emissions	0	
Worcester Regional Transit Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2025			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Worcester Regional Transit Authority					
RTD0010854	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010855	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	Quantified	Quantified Decrease in Emissions from Bus Replacement	0	A total of 23 new electric buses will be purchased over 4 years. GHG savings listed in final purchase year.
RTD0010856	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010857	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010858	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010861	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010863	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010864	City of Worcester: Rehabilitation of Union Station	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010878	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	Qualitative	No assumed impact/negligible impact on emissions	0	
WRTA011645	Worcester Regional Transit Authority - Preventive Maintenance	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011646	Worcester Regional Transit Authority - Transportation Planning Services	Not Applicable	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Worcester Regional Transit Authority					
WRTA011648	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	Not Applicable	No assumed impact/negligible impact on emissions	0	
Worcester Regional Transit Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2026			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2027					
Worcester Regional Transit Authority					
RTD0010854	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010855	Worcester Regional Transit Authority: Buy Replacement 40 FT Bus	Quantified	Quantified Decrease in Emissions from Bus Replacement	10,158,732	A total of 23 new electric buses will be purchased over 4 years. GHG savings listed in final purchase year.
RTD0010856	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010857	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010858	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010861	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010863	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010864	City of Worcester: Rehabilitation of Union Station	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010878	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	Qualitative	No assumed impact/negligible impact on emissions	0	
WRTA011645	Worcester Regional Transit Authority - Preventive Maintenance	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011646	Worcester Regional Transit Authority - Transportation Planning Services	Not Applicable	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2027					
Worcester Regional Transit Authority					
WRTA011648	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	Not Applicable	No assumed impact/negligible impact on emissions	0	
Worcester Regional Transit Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	10,158,732	
			Total GHG Difference (kg/year)	10,158,732	
2027			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	10,158,732	
			Total GHG Difference (kg/year)	10,158,732	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2028					
Worcester Regional Transit Authority					
RTD0010854	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010856	Worcester Regional Transit Authority: Buy Replacement Support Vehicles	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010857	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010858	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010861	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010863	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010864	City of Worcester: Rehabilitation of Union Station	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010878	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	Qualitative	No assumed impact/negligible impact on emissions	0	
WRTA011645	Worcester Regional Transit Authority - Preventive Maintenance	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011646	Worcester Regional Transit Authority - Transportation Planning Services	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011648	Worcester Regional Transit Authority - Engineering and Design of WRTA Facilities	Not Applicable	No assumed impact/negligible impact on emissions	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2028					
Worcester Regional Transit Authority					
Worcester Regional Transit Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2028			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	

Greenhouse Gas (GHG) Analysis Report
Program Activity: Transit

STIP: 2025 - 2029 (D)

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2029					
Worcester Regional Transit Authority					
RTD0010854	Worcester Regional Transit Authority: Operating Assistance - Fixed Route and Paratransit	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010857	Worcester Regional Transit Authority Regional Transit Authority: Purchase Support Equipment for Fixed Route and Demand Response	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010858	Worcester Regional Transit Authority: Purchase Spare Parts for Revenue Rolling Stock	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010861	Worcester Regional Transit Authority Regional Transit Authority: Purchase Fixed Route Bus Shelters	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010863	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Hub	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010864	City of Worcester: Rehabilitation of Union Station	Qualitative	No assumed impact/negligible impact on emissions	0	
RTD0010878	Worcester Regional Transit Authority: Renovations and Maintenance to WRTA Maintenance and Operations Facility	Qualitative	No assumed impact/negligible impact on emissions	0	
WRTA011645	Worcester Regional Transit Authority - Preventive Maintenance	Not Applicable	No assumed impact/negligible impact on emissions	0	
WRTA011646	Worcester Regional Transit Authority - Transportation Planning Services	Not Applicable	No assumed impact/negligible impact on emissions	0	
Worcester Regional Transit Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2029			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	0	
2025 - 2029			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	10,158,732	
			Total GHG Difference (kg/year)	10,158,732	

2) Listing of Regionally Significant Projects

There are four projects included within the region's 2025 to 2029 Transportation Improvement Program that has been identified as "regionally significant". These projects are as follows:

1.) Charlton/Oxford: Route 20 (#602659)

2.) West Brookfield: Route 9, Phases II (#609049)

3.) Shrewsbury: Route 20 (#610825)

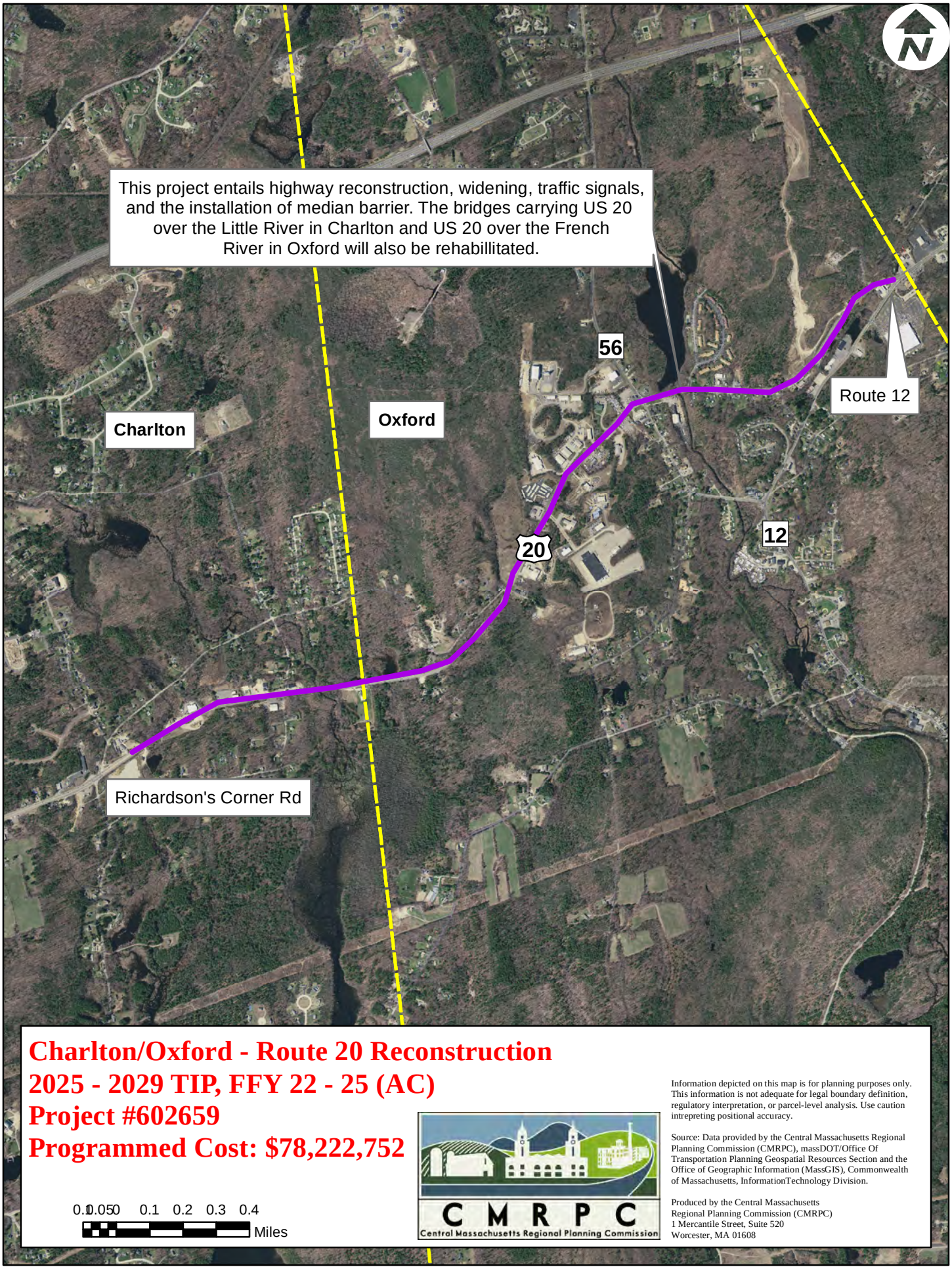
4.) West Brookfield: Route 9, Phase III (#612779)

The Charlton/Oxford Route 20 reconstruction project is considered regionally significant as Route 20 is a major route through the CMMPO region. Route 20 runs parallel to the MassPike (I-90) and is heavily utilized, especially if there are traffic accidents or other congestion issues on the MassPike. The project area has substandard design and has a well-documented safety history, including multiple fatalities. This project is also included as a Major Infrastructure project in the LRTP.

As for the West Brookfield Route 9 projects, they are also considered regionally significant due to the interregional connectivity to the Pioneer Valley Planning Commission (PVPC) region. Route 9 also connects to the urban area of Ware. Route 9 is an east/west roadway that travels through Central Massachusetts from West Brookfield to Westborough. Phase 1 of this project is also considered a Major Infrastructure project in the LRTP.

The Shrewsbury Route 20 rehabilitation project is also considered regionally significant as Route 20 is a major route through the CMMPO region. This section of Route 20 is currently three to four lanes and is heavily utilized for both automobiles and trucks. Safety improvements are proposed for this section of Route 20 as well as intersection and bicycle & pedestrian improvements. This project is also in consideration as a Major Infrastructure project in the development of the new LRTP.

The following pages provide a map of the forthcoming projects.



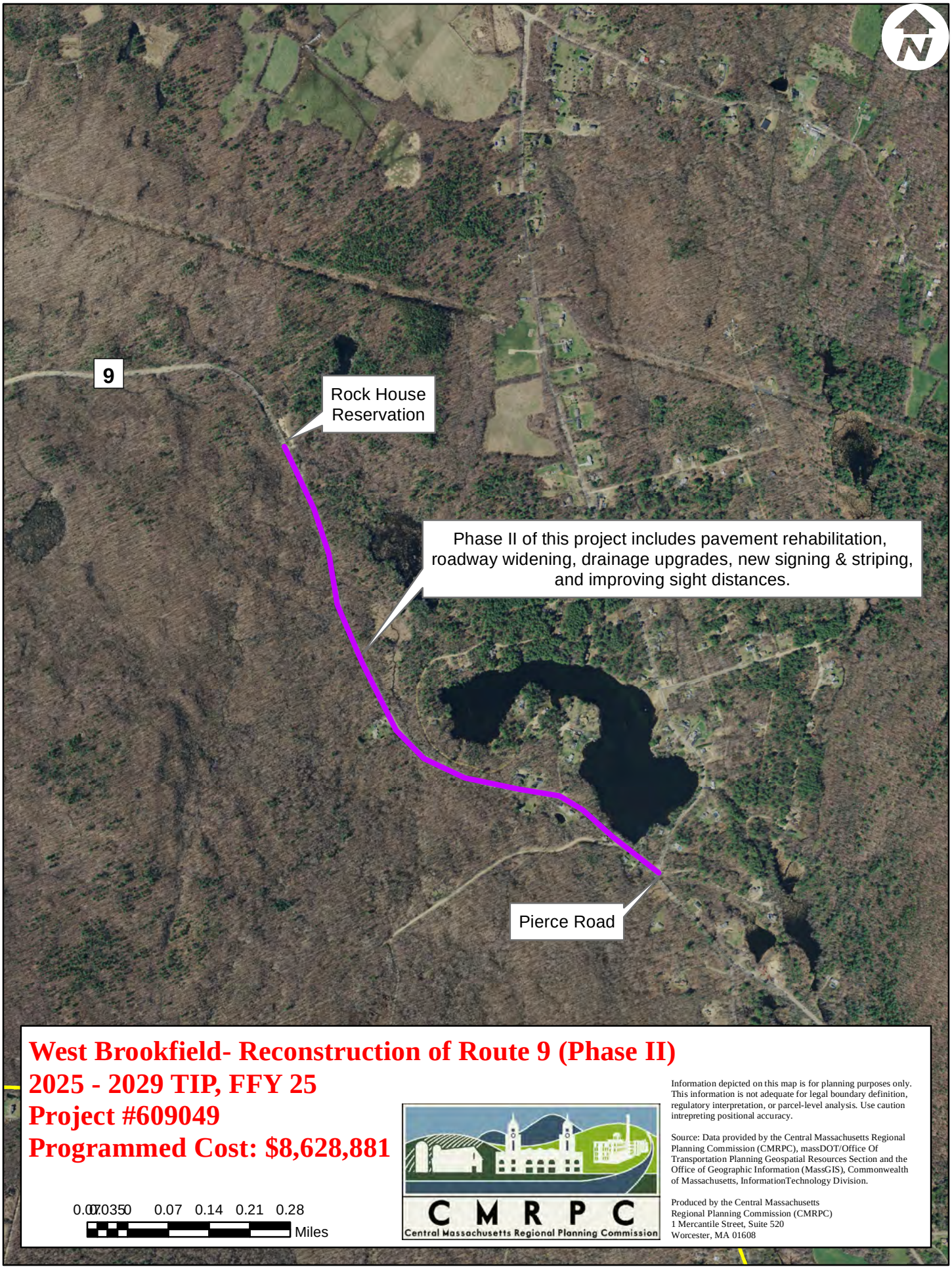
Charlton/Oxford - Route 20 Reconstruction
2025 - 2029 TIP, FFY 22 - 25 (AC)
Project #602659
Programmed Cost: $78,222,752

C M R P C
Central Massachusetts Regional Planning Commission

Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution intrepreting positional accuracy.

Source: Data provided by the Central Massachusetts Regional Planning Commission (CMRPC), massDOT/Office Of Transportation Planning Geospatial Resources Section and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, InformationTechnology Division.

Produced by the Central Massachusetts Regional Planning Commission (CMRPC)
1 Mercantile Street, Suite 520
Worcester, MA 01608



West Brookfield- Reconstruction of Route 9 (Phase II)

2025 - 2029 TIP, FFY 25

Project #609049

Programmed Cost: $8,628,881

0.00 0.035 0.07 0.14 0.21 0.28
Miles

CMRPC
Central Massachusetts Regional Planning Commission

Information depicted on this map is for planning purposes only. This information is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis. Use caution intrepreting positional accuracy.

Source: Data provided by the Central Massachusetts Regional Planning Commission (CMRPC), massDOT/Office Of Transportation Planning Geospatial Resources Section and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, InformationTechnology Division.

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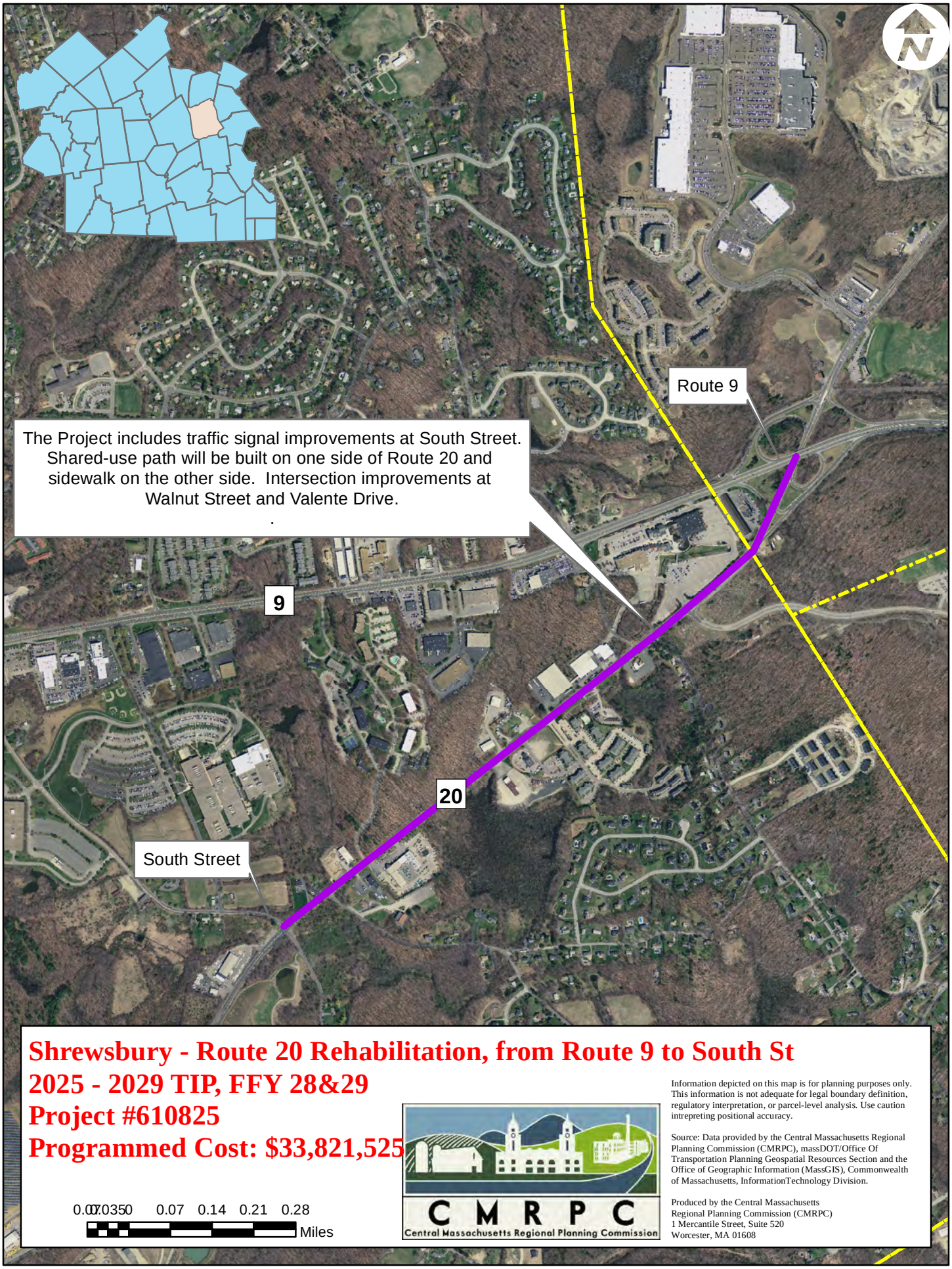

Shrewsbury - Route 20 Rehabilitation, from Route 9 to South St

2025 - 2029 TIP, FFY 28&29

Project #610825

Programmed Cost: $33,821,525

C M R P C
Central Massachusetts Regional Planning Commission

Source: Data provided by the Central Massachusetts Regional Planning Commission (CMRPC), massDOT/Office Of Transportation Planning Geospatial Resources Section and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, InformationTechnology Division.

Produced by the Central Massachusetts Regional Planning Commission (CMRPC)
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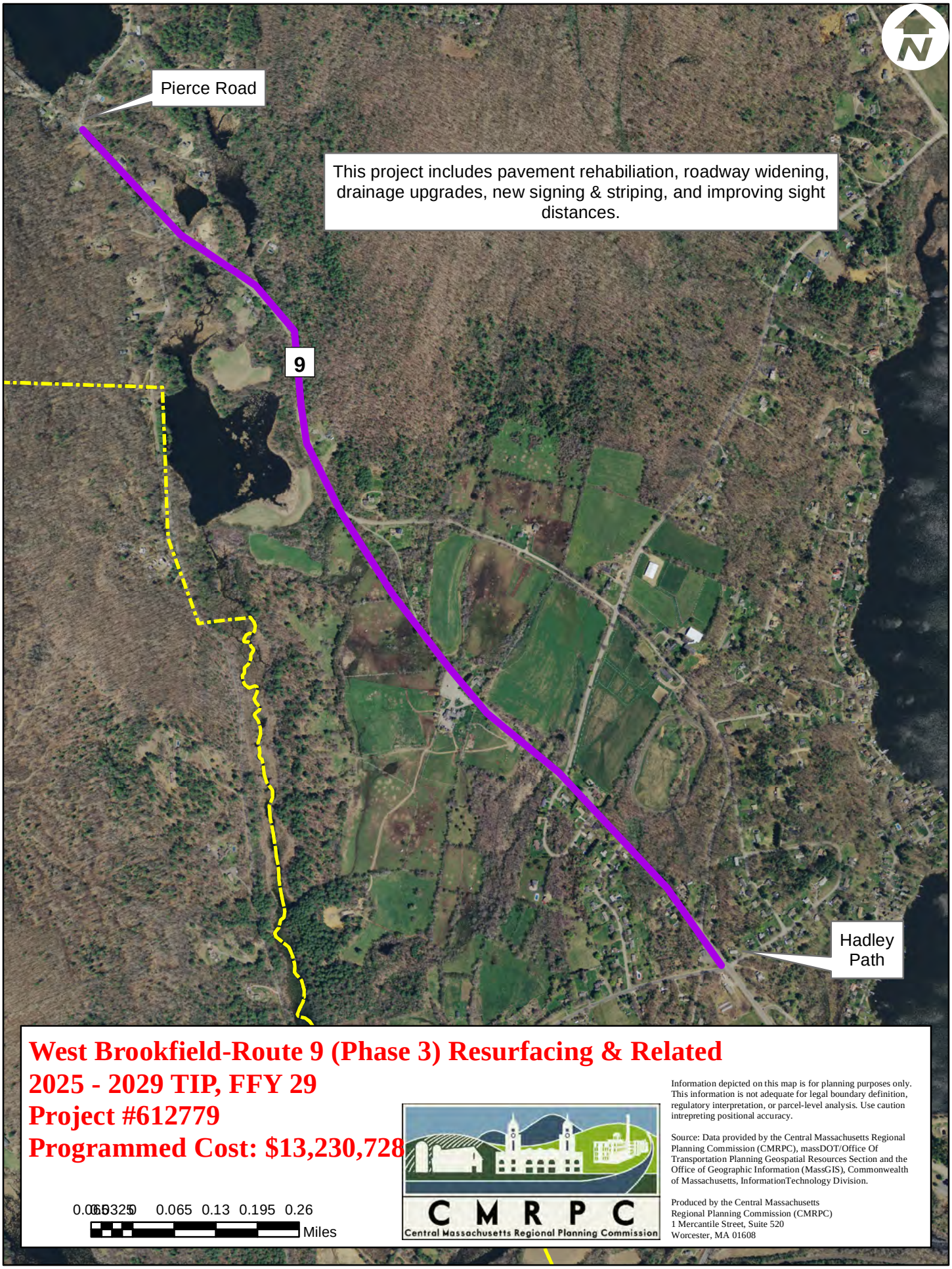

West Brookfield-Route 9 (Phase 3) Resurfacing & Related

2025 - 2029 TIP, FFY 29

Project #612779

Programmed Cost: $13,230,728

CMRPC
Central Massachusetts Regional Planning Commission

Source: Data provided by the Central Massachusetts Regional Planning Commission (CMRPC), massDOT/Office Of Transportation Planning Geospatial Resources Section and the Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, InformationTechnology Division.

Produced by the Central Massachusetts Regional Planning Commission (CMRPC)
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3) Advanced Construction

MassDOT Guidance on Advance Construction (AC)

The AC method of project funding will *only* be used if project construction, due to MassDOT engineering decisions, would need to be scheduled to cover each of multiple years for which funding is programmed. The AC method will *not* be used solely to fund a project.

Further, the AC method will be used *only* for projects that exceed an MPO annual funding target; projects that can be programmed in one year will *not* use AC funding. (In the Boston MPO, where the target is significantly greater than other MPOs, it may be possible, on a case-by-case basis, to use AC for projects that are less than the target but are still significant in cost (over $25 million) with prior discussion and approval by FHWA). In addition, MassDOT will consult with FHWA regarding potential special cases that may evolve in other regions. As an example, a region's funding target may not be sufficient to maintain consistency with a required project implementation schedule.

FHWA Guidance on Advance Construction (AC)

AC should only be used if: 1) Project construction, due to engineering decisions, would be scheduled to span the years for which the funding is programmed; 2) there is a program necessity that would make the impacts of not programming using AC significant, as compared to the financial impacts to the program considering the AC amount. AC should not be used solely to fund a project.

With respect to MPO target programming, AC should generally be used for projects that exceed an MPO's annual target. For the Boston Region MPO and MassDOT, AC may be used for projects that are $25 million or more.

Clear information should be provided for projects that are advance constructed to determine the timeframe of the AC. For example, if a project is advanced constructed over two years, a note should be included in the project description within the S/TIPs to indicate the AC year, such as "AC year1/2" or "AC year 2/2." The STIP should include a schedule of all AC funded projects and be updated based on any project changes. Any exceptions to AC guidance should be approved by the appropriate federal agency before programming occurs. Updated AC tables reflecting project changes should be submitted with each STIP amendment.

4) HSIP Documentation

The Highway Safety Improvement Program (HSIP) is a "core funding" program administered by Federal Highway Administration, which apportions funds to States under 23 U.S.C. 148(c)(1) for a range of eligible activities focused primarily on infrastructure-related safety improvements. The purpose of the HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

HSIP Selection Criteria:

Projects using Federal HSIP funding are required to be selected by a data driven process. To satisfy this requirement MassDOT obtains crash data from local police reports collected by the RMV Crash Records Section. Then with the assistance of Geonetics, they developed an automated procedure for processing, standardizing, matching, and aggregating the crash data by geographical location using GIS tools and procedures resulting in crash clusters, bike clusters and pedestrian clusters.

CMRPC used the data provided by MassDOT that includes crashes from 2018 -2020 and pedestrian/bicycle crashes from 2011-2020. The locations eligible for HSIP funding includes:

a) The top 5 % of automobile crash clusters - They are derived from all crash clusters identified by MassDOT on local roads (excluding interstate highways).
b) The top 5% of bicycle crash clusters – They are derived from all bicycle crash clusters identified by MassDOT.
c) The top 5% of pedestrian crash clusters – They are derived from all pedestrian crash clusters identified by MassDOT.

Table 20 lists the target projects that have been programmed for HSIP funding in the 2025-2029 TIP.

Table 20 – HSIP Projects

TIP Year	MassDOT Project ID	Project Description
2025	608778	Southbridge – Downtown Intersection Improvements
2025	608961	Worcester – Intersection Improvements at Chandler St & May St
2027	608990	Worcester – Intersection Improvements on Chandler St (Phase 1)
2027	609441	Northbridge – Intersection Improvements @Rt 122/Sutton St/Upton St
2027	612011	Worcester – Intersection Improvements on Chandler St (Phase 2)

Table 21 shows the crash data from the intersections located within the HSIP funded projects listed above.

Table 21 - HSIP Eligible Crash Clusters

Source: MassDOT

*Crash Cluster: Individual Crashes are merged within a 25-meter radius.

					2018-2020				
TIP Year	Project ID#	Municipality	Location	Route	Crash Count	Fatal & Serious Injury Crashes	Non-Serious & Possible Injury Crashes	Non-Injury Crashes	EPDO
2025	608778	Southbridge	Hamilton St @ Hook St		14	0	4	10	94
2025	608961	Worcester	Chandler St @ May St	MA-122	15	0	7	8	155
2026	608990	Worcester	Chandler St @ Main St	MA-122	31	1	7	18	186
2026	608990	Worcester	Chandler St @ Murray Ave	MA-122	21	0	5	12	117
2026	608990	Worcester	Chandler St @ Irving St	MA-122	21	0	9	8	197
2026	608990	Worcester	Chandler St @ Piedmont St	MA-122	51	1	13	32	326
2026	608990	Worcester	Chandler St @ Queen St	MA-122	13	0	6	10	136
2026	609441	Northbridge	Route 122 @ Sutton St, Upton St & School St	MA-122	41	0	7	32	179
2027	612011	Worcester	Chandler St @ Bellevue St	MA-122	18	0	5	13	118
2027	612011	Worcester	Chandler St @ Mason St	MA-122	55	2	12	26	320
2027	612011	Worcester	Chandler St @ Dewey St	MA-122	25	0	5	12	117
2027	612011	Worcester	Chandler St @ Park Ave	MA-122	26	0	7	19	166

PDO = Property Damage Only
EPDO = Equivalent Property Damage Only, Fatal Crashes = 21,
Injury Crashes = 21, PDO = 1

Central Massachusetts Regional Planning Commission

Member Communities

Auburn	Northborough
Barre	Northbridge
Berlin	Oakham
Blackstone	Oxford
Boylston	Paxton
Brookfield	Princeton
Charlton	Rutland
Douglas	Shrewsbury
Dudley	Southbridge
East Brookfield	Spencer
Grafton	Sturbridge
Hardwick	Sutton
Holden	Upton
Hopedale	Uxbridge
Leicester	Warren
Mendon	Webster
Millbury	West Boylston
Millville	West Brookfield
New Braintree	Westborough
North Brookfield	Worcester

Central Mass Regional Planning Commission

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