Merrimack Valley Metropolitan Planning Organization

Transportation Improvement Program

Federal Fiscal Years 2024-2028

Merrimack Valley Metropolitan Planning Organization

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Front Matter & Certifications

Funding Disclaimer

This report was funded in part through grants from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), United States Department of Transportation (USDOT). The views and opinions of the Merrimack Valley Metropolitan Planning Organization (MVMPO) expressed herein do not necessarily state or reflect those of the USDOT.

Title VI Notice of Protection

The MVMPO complies with federal and state nondiscrimination obligations and does not discriminate on the basis of race, color, age, religion, creed, national origin (including limited English proficiency), ethnicity, ancestry, sex, gender, sexual orientation, gender identity or expression, disability, veteran's status, or background. For more information, to express a concern, or to file a complaint, please contact Title VI Specialist Patrick Reed by phone at 978-374-0519, Ext. 15 or by email at preed@mvpc.org. Visit www.mvpc.org to learn more about these nondiscrimination obligations.

MVPC is committed to nondiscrimination in all activities. Individuals who believe they have been discriminated against may file a complaint with MVPC at:

Attn: Title VI Specialist
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830
Email: preed@mvpc.org

Complaints may also be filed directly with the United State Department of Transportation at:

U.S. Department of Transportation
Office of Civil Rights
1200 New Jersey Avenue, SE
Washington, DC 20590
Website: civilrights.justice.gov

For additional information, language service requests, or reasonable accommodations visit https://mvpc.org/title-vi

Translations

Spanish

Si necesita esta información en otro idioma, por favor contacte al coordinador de MVMPO del Título VI/Contra la Discriminación al 978-374-0519 ext. 15.

Portuguese

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Título VI e de Não Discriminação da MVMPO pelo telefone 978-374-0519, Ramal 15.

Chinese Simple

如果需要使用其它语言了解信息，请联系Merrimack Valley**大都会**规划组织（MVMPO）《**民**权法案》第六章协调员，电话978-374-0519，转15。

Chinese Traditional

如果需要使用其他語言瞭解資訊，請聯繫 Merrimack Valley**大都會規劃組織**（MVMPO）《**民權法案》第六章協調員，電話**978-374-0519，**轉**15。

Vietnamese

Nếu quý vị cần thông tin này bằng tiếng khác, vui lòng liên hệ Điều phối viên Luật VI/Chống phân biệt đối xử của MVMPO theo số điện thoại 978-374-0519, số máy nhánh 15.

French Creole

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Kowòdinatè kont Diskriminasyon/MVMPO Title VI la nan nimewo 978-374-0519, ekstansyon 15.

Russian

Если Вам необходима данная информация на любом другом языке, пожалуйста, свяжитесь с Координатором Титула VI/Защита от дескриминации в MVMPO по тел: 978-374-0519, добавочный 15.

French

Si vous avez besoin d'obtenir une copie de la présente dans une autre langue, veuillez contacter le coordinateur du Titre VI/anti-discrimination de MVMPO en composant le 978-374-0519, poste 15.

Italian

Se ha bisogno di ricevere queste informazioni in un’altra lingua si prega di contattare il coordinatore del MVMPO del Titolo VI e dell'ufficio contro la discriminazione al 978-374-0519 interno 15.

Mon-Khmer, Cambodian

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Arabic

إذا كنت بحاجة إلى هذه المعلومات بلغة أخرى، يُرجى الاتصال بمنسق الفقرة السادسة التابع للتمييز في الحضري التخطيط لمنظمة الهاتف على فالي ميريماك: 978-374-0519 ثم اضغط الأرقام 15.

FFY 2024-2028 Transportation Improvement Program Endorsement

Whereas, the Merrimack Valley MPO has completed its review in accordance with Section 176(c) (4) of the Clean Air Act as amended in 1990 [42 U.S.C. 7251 (a)], and hereby certifies that the FFYs 2024-2028 TIP is financially constrained and that the implementation of the Merrimack Valley Metropolitan Planning Organization 2020 Regional Transportation Plan satisfies the conformity criteria specified in both 40 CFR Part 51 and 93 (8/15/1997) and 310 CMR 60.03 (12/30/1994).

Therefore, in accordance with 23 CFR Part 450 Section 322 (Development and content of the Metropolitan Transportation Plan) of the March 16, 2007 Final Rules for Statewide and Metropolitan Planning, the MPO hereby endorses the FFYs 2024-2028 Transportation Improvement Program.

May 24, 2023

for

Gina Fiandaca, Secretary and CEO
Massachusetts Department of Transportation (MassDOT)
Chair, Merrimack Valley Metropolitan Planning Organization (MVMPO)

Self-Certification Compliance Statement

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

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

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

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

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

5. Section 1101 (b) of the Fast Act (Pub. L. 114-357) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in U.S. DOT-funded projects.

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

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

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

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

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

11. Anti-lobbying restrictions found in 49 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.

May 24, 2023

for

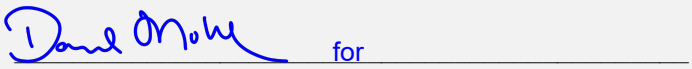
Gina Fiandaca, Secretary and CEO
Massachusetts Department of Transportation (MassDOT)
Chair, Merrimack Valley Metropolitan Planning Organization (MVMPO)

310 CMR 60.05 Global Warming Solutions Act Requirements for the Transportation Sector and MassDOT Certification

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

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

May 24, 2023



for

Gina Fiandaca, Secretary and CEO
Massachusetts Department of Transportation (MassDOT)
Chair, Merrimack Valley Metropolitan Planning Organization (MVMPO)

Executive Summary

About the Merrimack Valley Metropolitan Planning Organization

Fifteen member communities fall within the Merrimack Valley's federally designated metropolitan planning region. The Merrimack Valley Planning Commission (MVPC) supports these communities by facilitating various environmental, economic development, transportation, and technology planning services. Staff within MVPC also support the Merrimack Valley Metropolitan Planning Organization (MVMPO), which is the region's transportation policy board. This body manages the region's federally required Continuing, Cooperative, and Comprehensive (3C) transportation planning process, which ensures infrastructure planning and funding coordination across the local, state, and federal levels of government.

What is the region's Transportation Improvement Program (TIP)?

The Transportation Improvement Program (TIP) is the region's transportation capital plan. Each year the MVMPO prepares and approves a list of projects that are candidates to receive federal aid over a five-year period. Projects must be programmed on the TIP to receive federal aid.

How is the TIP developed?

The TIP programs federal aid from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

On the highway side, the TIP contains two primary types of federal aid projects: regional projects and statewide projects. Regional projects are typically developed by member communities in coordination with MVMPO staff and MassDOT and are typically confined to a single municipality. These projects tend to benefit residents, employees, and visitors who travel through the specific municipality. By contrast, statewide projects tend to be greater in geographic scope and/or magnitude of benefit in that they support statewide mobility or satisfy interests and goals of the state.

On the transit side, the TIP contains both capital and operating support for the region's transit authority (MeVa). Capital projects include a range of project-types, including but not limited to replacing rolling stock, preventative maintenance, and upgrading facilities. Operating projects include subsidy for operations and short-range planning support.

Federal aid projects are supported by two types of federal aid funding: apportioned aid and discretionary aid. Federal surface transportation legislation develops programs and associated funding ceilings to allow states and regional governments to obligate the use of federal funds for their projects. Funds that are *apportioned* are approved by congress and divvyed up to states by program. In Massachusetts, regional funds are further broken up by formula. Funds that are *discretionary* are available to recipients as warranted by federal approval, most typically through competitive grant programs administered by the Federal Highway Administration or Federal Transit Administration.

What projects are funded in this year's TIP?

This cycle programs federal aid for the following regional target projects:

- Reconstruction of Route 1 in Salisbury
- Reconstruction on Route 97 between West Main and Moulton Street in Georgetown
- Intersection Improvements at Route 1 and Merrimack Street in Newburyport
- Corridor Improvements on Route 114 between Waverly Road and Mill Street in North Andover
- Reconstruction of North Avenue between Main Street and the New Hampshire Line in Haverhill
- Intersection Improvements at Merrimack Street and South Broadway Road in Lawrence
- Intersection Improvements at Riverside Drive and Burnham Road in Methuen
- Intersection Improvements at Marston Street and East Haverhill Street in Lawrence
- Reconstruction of Route 133 between Shawhseen Road and North Main Street in Andover
- A trail connector between the Riverwalk and Salisbury Ghost Trail in Amesbury
- Replacement of the Basiliere Bridge in Haverhill
- Replacement of I-495 Bridges in Andover and Lawrence
- A segment of the Border to Boston Trail between Georgetown Road and West Main Street in Georgetown and Boxford
- A segment of the Border to Boston Trail between Georgetown and Byfield in Georgetown and Newbury
- Lawrence to Manchester Rail Trail
- Replacement of the I-495 Bridge over the Merrimack River and Route 110 in Haverhill and Methuen
- Safe Routes to School Improvements for Community Day Arlington in Lawrence
- Interstate Improvements on I-93 between Andover and Tewksbury
- Safe Routes to School Improvements for Bagnall Elementary in Groveland
- Bridge replacement on Tewksbury Street over the MBTA Commuter Rail in Andover
- Bridge replacement on Route 213 over the Methuen Rail Trail in Methuen
- Bridge preservation on I-93 in Andover
- Various transit projects that allow Merrimack Valley Transit (MeVa) to operate their year-round fare-free fixed route service, operate paratransit services, and maintain vehicles and other infrastructure.

How Can I Be Involved?

Every year, the MVMPO releases its draft TIP for a 21-day comment period at its April meeting. Public hearing opportunities are provided and advertised thereafter. In addition to attending a public hearing, written comments may be provided to the MPO by mail and/or email via the contact information listed below. Staff additionally welcome the opportunity to discuss the TIP and may be contacted to set up a meeting by email.

Mail:
Attn: Transportation Program Manager
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830

Email:
preed@mvpc.org

Can the TIP be Changed Following Approval?

Yes. The TIP may be amended or adjusted in a given year following the procedures outlined in the region's most current Public Participation Plan. The subject document also includes the current procedures (as of the approval date of May 24, 2023) on page 69.

Contents

Chapter 1: Transportation Planning Process

Overview

Transportation projects are born in a variety of ways. Elected officials, municipal engineers/planners, regional transportation officials, and community advocates can each play role in a project's development and advancement. While it is possible for municipalities to manage the entire development, design, and construction of a project, on many occasions local governments will engage their associated Metropolitan Planning Organization (MPO) to study, design, or advance projects. This happens most typically when a municipality seeks additional funding for a project beyond its own coffers or bond authority.

Each metropolitan area in the United States with a population equal to or exceeding 50,000 has an MPO. An MPO is a federally designated policy board that carries out the metropolitan transportation planning process, often referred to as the 3C Transportation Planning Process (Continuing, Comprehensive, and Cooperative). MPOs promote ongoing cooperation among municipal, state, and federal partners to advance transportation-related needs for all users of the transportation network. They assess both short and long term needs and function as a forum for impartial regional decision-making.

The Merrimack Valley MPO, or MVMPO, is the Merrimack Valley region's designated MPO board. MVMPO is a ten-person board representing 15 member towns and cities, the Merrimack Valley Planning Commission (MVPC), Merrimack Valley Transit (MeVa), and representatives from the Massachusetts Department of Transportation (MassDOT). MVPC's transportation department staffs the MVMPO. Figure 1 depicts a map of the MVMPO's 15 member communities and towns.

Federal Aid Basics and 3C Transportation Planning Documents

As a designated MPO, the MVMPO coordinates with its member communities to program apportioned and discretionary federal aid (i.e. obligate the use of federal funds to support local needs). Apportioned aid is made available to states by the federal government in an amount determined by formulas included in federal surface transportation legislation, the most recent being the Infrastructure and Jobs Act (IIJA), which is more commonly referred to as the Bipartisan Infrastructure Law (BIL). A state allocates a percentage of its apportioned federal aid to be available to regional MPOs and recognized regional transit authorities. Apportioned aid comprises most of the federal aid that MPOs are responsible for programming. MPOs are also responsible for programming discretionary aid—aid that is not guaranteed in surface transportation legislation, which is often awarded to regions and municipalities through competitive grant processes—and earmarks.

To remain eligible to program available federal aid, MPOs must produce and endorse four certification documents: the Unified Planning Work Program (UPWP), the Transportation Improvement Program (TIP), the Metropolitan Transportation Plan (MTP), and a Public Participation Plan. Table 1 describes the role of the certification documents in the 3C funding process. Figure 2 depicts the relationship between the three primary federally required certification documents. The Public Participation Plan, which is not shown in Figure 2, establishes standards and policies for engaging communities in the development and approval of the other documents. Table 1 describes each 3C document.

Figure 1-MVPC and MVMPO Member Communities

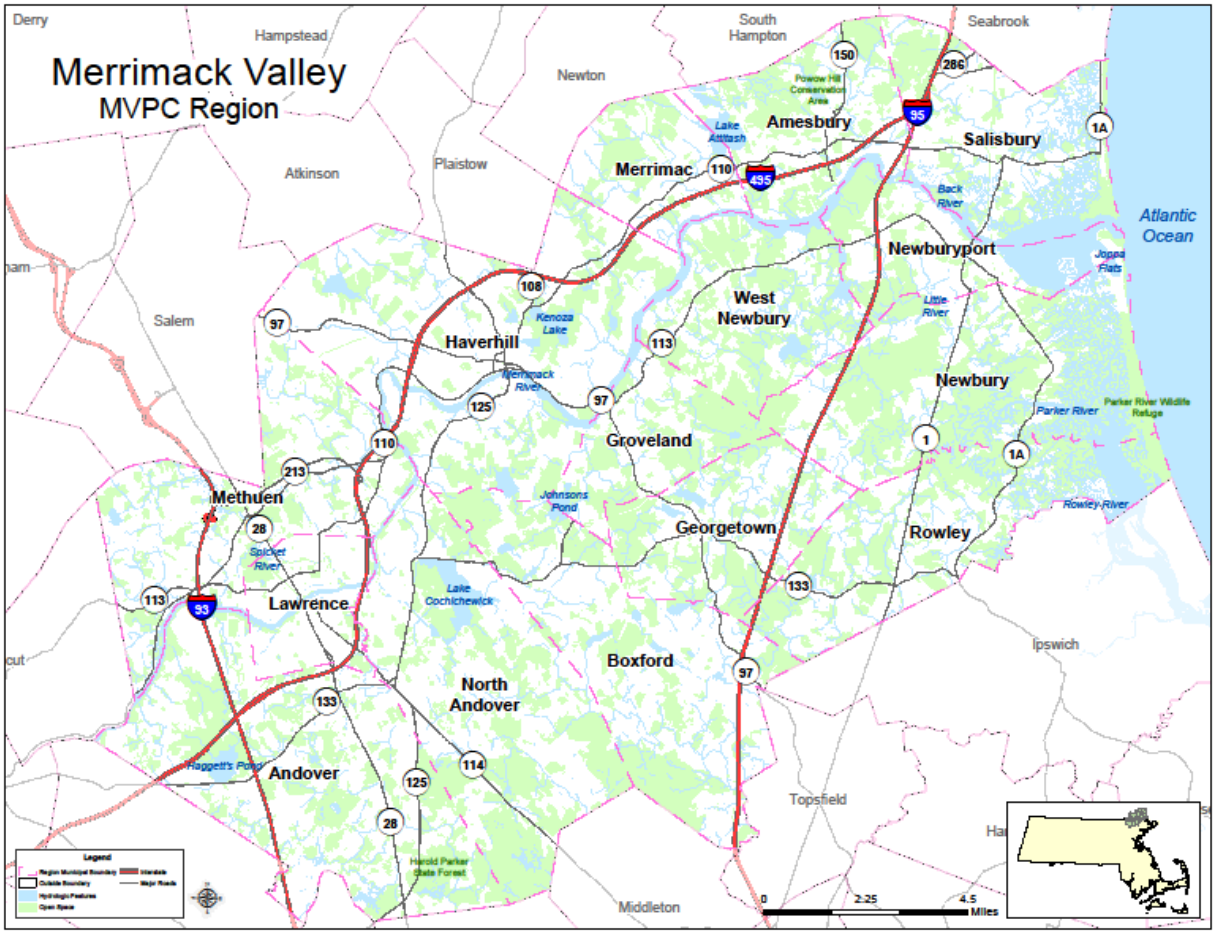


Figure 2 - 3C Transportation Planning Process Documents

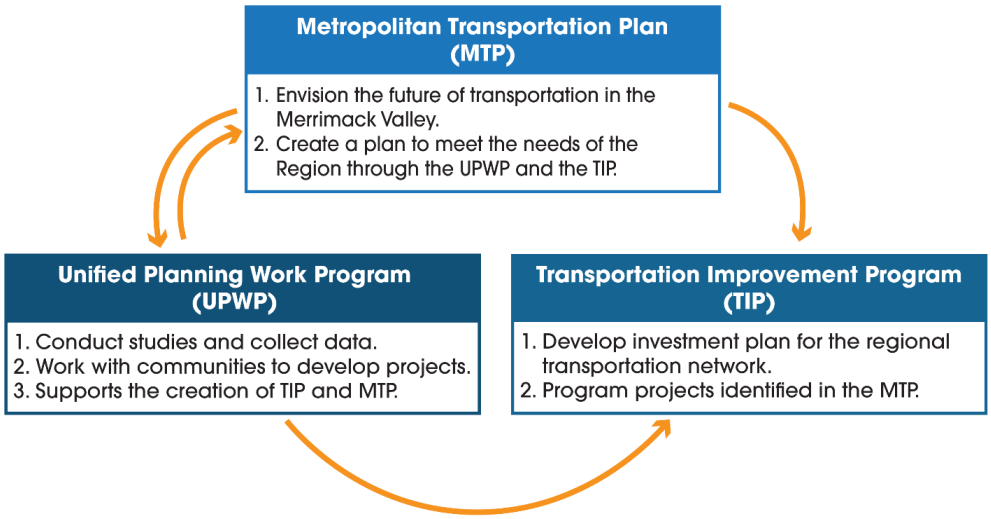


Table 1 - 3C Certification Documents

Document	Purpose	Horizon	Update Timeline
Unified Planning Work Program (UPWP)	Establishes the annual work program for the MVMPO staff, including studies and tasks that support member communities.	One Year	Annually, endorsed in spring
Transportation Improvement Program (TIP)	Programs federal and state aid funding for specific transportation projects.	Five Years	Annually, endorsed in spring
Metropolitan Transportation Plan (MTP)	Establishes the long-range vision for a region, including goals and objectives. Identifies projects and strategies to realize the vision.	Twenty to Twenty-Five Years	Updated every four to five years, depending on current surface transportation legislation; typically endorsed in summer.
Public Participation Plan (PPP)	Establishes standards and policies for engaging communities in the 3C transportation planning process.	Continuous	Approximately every five years

The region's Metropolitan Transportation Plan (MTP)—which is a long-term, high-level visioning document—includes a fiscally-constrained list of projects that are potential candidates for state and federal aid. These projects often originate from studies or tasks included in the region's annual Unified Planning Work Program (UPWP). The MTP may also recommend potential studies or tasks for future UPWP cycles.

The UPWP always includes a line item for the development of the annual Transportation Improvement Program (TIP). This document programs projects for federal aid based on their benefits and readiness. Projects on the TIP must also be included in the most recent MTP, or at the very least, have a strong relationship to the MTP's vision.

Surface Transportation Legislation

Historically, surface transportation legislation has been the vehicle that authorizes apportioned and discretionary funding streams to support infrastructure improvements. Each round of enabling legislation differs from the previous by setting funding formulas and updating, adding, and eliminating funding programs.[1]

On November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (Pub. L. No. 117-58). The BIL is the largest long-term investment in the nation's infrastructure and economy. The BIL authorizes $550 billion over fiscal years 2022 through 2026 for investments in infrastructure related to roads, bridges, public transit, water infrastructure, resilience, and broadband.

The BIL includes Planning Emphasis Areas (PEAs), around which states and MPOs should orient their planning efforts. The BIL encourages the Federal Highway Administration (FHWA) division and Federal

[1] See pages 34-39 for a list of highway and transit programs authorized by the BIL.

Transit Administration (FTA) regional offices to work with State DOTs, MPOs, and other parties as relevant to advance the emphasis areas. Table 2 lists the eight PEAs.

Table 2 - Planning Emphasis Areas

Planning Emphasis Area	Description
Tackling the Climate Crisis – Transition to a Clean Energy and Resilient Future	Ensure that our transportation plans and infrastructure investments help achieve the national greenhouse gas reduction goals of 50 52% below 2005 levels by 2030, and net-zero emissions by 2050.
Equity and Justice40 in Transportation Planning	Advance racial equity and support for underserved and disadvantaged communities.
Complete Streets	Review current policies, rules, and procedures to determine their impact on safety for all users. This effort should work to include provisions for safety in future transportation infrastructure, particularly those outside automobiles.
Virtual Public Involvement	Increase meaningful public involvement in transportation planning by integrating Virtual Public Involvement (VPU) tools into the overall public involvement approach while ensuring continued public participation by individuals without access to computers and mobile devices.
Strategic Highway Network (STRAHNET)/US Department of Defense Coordination	Coordinate with representatives from DOD in the transportation planning and project programming process on infrastructure and connectivity needs for STRAHNET routes and other public roads that connect to DOD facilities.
Federal Land Management (FLMA) Coordination	Coordinate with FLMAs in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to federal lands.
Planning and Environmental Linkages	Implement PEL as part of the transportation planning and environmental review process. The use of PEL is a collaborative and integrated approach to transportation decision-making that considers environmental community, and economic goals early in the transportation planning process, and uses the information, analysis, and products developed during planning to inform the environmental review process.
Data in Transportation Planning	Incorporate data sharing and consideration into the transportation planning process.

In addition to the planning emphasis areas listed above, the 2015 Fixing America's Surface Transportation (FAST) Act included several planning factors, which remain relevant to 3C planning, as shown in Table 3.

Table 3 - FAST Act Planning Factors

Factor	Description
Safety	Achieve a significant reduction in traffic fatalities and serious injuries on all public roads
Infrastructure Condition	Maintain the highway infrastructure asset system in a state of good repair
System Reliability	Improve the efficiency of the surface transportation system
Freight Movement and Economic Vitality	Improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
Environmental Sustainability	Enhance the performance of the transportation system while protecting and enhancing the natural environment, including mitigation strategies for stormwater management and nutrient loading
Reduced Project Delivery Delays	Reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

Title VI/Nondiscrimination

The MVMPO recognizes the importance of national nondiscrimination legislation and complies with federal requirements. The MVMPO has developed a Title VI Plan to ensure that all interested parties in the region can access and be involved in the MVMPO's decision-making process. The MVMPO promotes awareness of its Title VI notices and processes in a variety of ways, including:

- Posting Title VI notices on MVPC.org web pages;
- Posting MVMPO meeting agendas both physically at MVPC and on the website;
- Posting public hearing and meeting notices physically at MVPC, at Merrimack Valley Transit bus stations (when applicable), and at the town and city halls of member communities;
- Providing major libraries in the region with major documents and publication; and
- Circulating draft documents for public review.

The MVMPO recognizes that although Title VI is the focal point of non-discrimination law in the United States, FHWA incorporates a broader spectrum of statutes, executive orders, and regulations into its requirements for states and MPOs. For example, Section 324 of the Federal-Aid Highway Act of 1973 prohibits discrimination based on sex; Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of disability status, as does the Americans with Disabilities Act of 1990. Additionally, the Age Discrimination Act of 1975 prohibits age discrimination. Finally, the Civil Rights Restoration Act of 1987 (FHWA Notice 4720.6) clarified the original intent of Congress with respect to Title VI by restoring the broad, institution-wide scope and coverage of the nondiscrimination statutes to include all programs and activities of federal aid recipients and enforcing the application of the laws that include nondiscrimination on the basis of race, color, national origin, age, gender, or disability.

Chapter 2: TIP Development Process

Overview

The TIP programs federal aid projects for funding over a five-year horizon. Each programmed highway and transit project must be included in the region's most current Metropolitan Transportation Plan (MTP) or have substantial relation to its goals or vision.

On the highway-side of federal aid, MVPMPO staff propose projects for programming based on two core elements: project readiness and scoring. Highway projects must first be conceptually designed, accepted by MassDOT's Project Review Committee (PRC), and assigned a project number. Projects are then reviewed by MPO staff and assigned an evaluation score that relates to the BIL's Planning Emphasis Areas (PEAs), the FAST Act's Planning Factors, defined statewide performance measure targets (as detailed under the heading "Performance Measures") and regional priorities.

Merrimack Valley Transit (MeVa) staff prepare the proposed transit program. Transit federal aid must align with a region's Transit Asset Management (TAM Plan) and Transit Safety Performance Targets (each described under their respective headings).

The criteria used to inform the proposed program of MVMPO staff and MeVa staff ensures a dispassionate approach to programming funding. The MVMPO Board—and not staff—exercise their discretion to revise the proposed program. The public may participate in development of the TIP by several means, including providing input to their respective community's board member, contacting staff to provide written comment, participating in hearings during the draft TIP's 21-day comment period, and participating in the document's endorsement hearing.

Schedule

The MVMPO's TIP development process synchronizes with the state's update to the State Transportation Improvement Program (STIP), which is required per 23 CFR 450.324. The STIP includes projects from the Merrimack Valley and every other planning region in Massachusetts. MVMPO's TIP is typically endorsed annually in May, which informs the STIP for approval prior to October 1.

Readiness

MassDOT provides input each year pertaining to highway-side projects' readiness for programming. Each project's determined readiness year is based on the project's design status, right-of-way work (i.e. takings, securing easements, identifying and confirming title holders etc.), and environmental documentation/decision-making status, as required by both the Massachusetts Environmental Policy Act (MEPA) and National Environmental Policy Act (NEPA). Readiness determinations help ensure that available obligation authority will be drawn down. Programming projects that are not ready for construction can result in the opportunity cost of unspent available funding in a given fiscal year.

Some MPOs in Massachusetts have developed their own supplemental readiness year criteria. MVMPO does not currently have its own supplemental readiness criteria, but instead relies on MassDOT's readiness guidance for programming determinations.

Transportation Evaluation Criteria Scoring

Over the past twenty years, the MVMPO has scored each highway-side project based on several planning criteria that were developed based on surface transportation legislation planning factors and emphasis areas, state performance measure targets, and regional priorities as described in the region's most current Metropolitan Transportation Plan (MTP). Legacy scores from this scoring system were retained in this TIP cycle; however, MVMPO staff anticipate that it will develop a new project scoring method for the FY25-FY29 TIP cycle.

The current scoring methodology evaluates projects based on six criteria, each with several sub-criteria, related to a project's benefits and impacts. Projects may receive a maximum score of 17.75. The current methodology is described in more detail in the appendix under the "TEC Scoring" header.

Equity

The MVMPO's current transportation evaluation criteria include scoring categories related to positive and negative impacts on Environmental Justice communities. MVMPO staff also account for the geographic distribution of projects across member municipalities for regional target projects of which the MPO Board has direct decision-making authority. Table 4 illustrates the breakdown of funding by municipality and project type for this TIP cycle.

Table 4 - FFY24-28 Programming by Municipality and Project Type

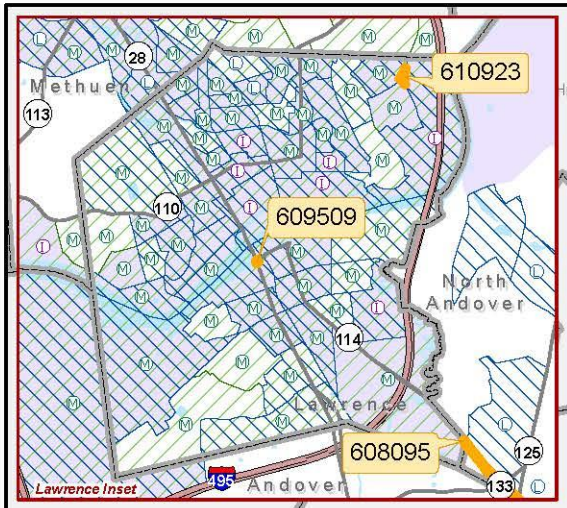
Municipality	Regional Target Projects[1,2]	Statewide Projects[2]	Earmarks & Discretionary Funding	Total
Amesbury	$2,364,320	$0	$0	$2,364,320
Andover	$15,390,800	$157,995,141	$0	$173,385,941
Boxford	$0	$2,262,821	$0	$2,262,821
Georgetown	$11,179,434	$5,540,428	$0	$16,719,862
Groveland	$0	$1,812,426	$0	$1,812,426
Haverhill	$703,246	$300,000,000	$150,000,000	$450,703,246
Lawrence	$3,164,613	$140,258,440	$8,315,255	$151,738,308
Merrimac	$0	$0	$0	$0
Methuen	$2,020,503	$154,605,891	$150,000,000	$306,626,394
Newbury	$0	$3,277,607	$0	$3,277,607
Newburyport	$2,688,000	$0	$0	$2,688,000
North Andover	$25,317,287	$16,965,186	$0	$42,282,473
Rowley	$0	$0	$0	$0
Salisbury	$7,665,815	$2,543,975	$0	$10,209,790
West Newbury	$0	$0	$0	$0
Total	**$70,494,018**	**$785,261,914**	**$308,315,255**	**$1,164,071,187**

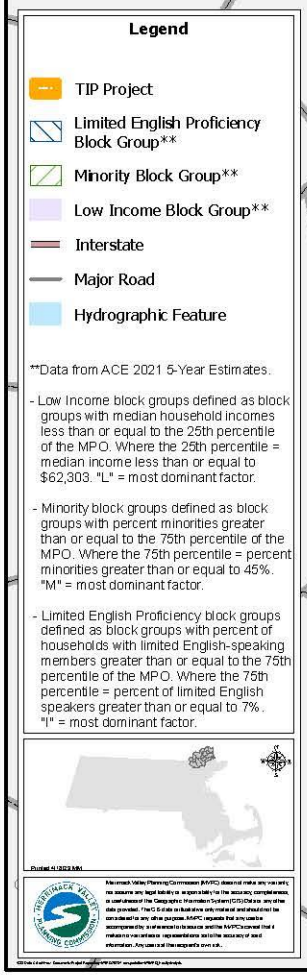
[1]Table 4 only includes funding amounts programmed within FFY24-28. Projects with advance construction schedules exclude programmed totals that precede or fall after the subject program period.

[2]Program amounts for projects that span multiple municipalities (e.g. bridges connecting two communities) are split in the table in a 50-50 share, which may not reflect the ultimate level of effort in each community.

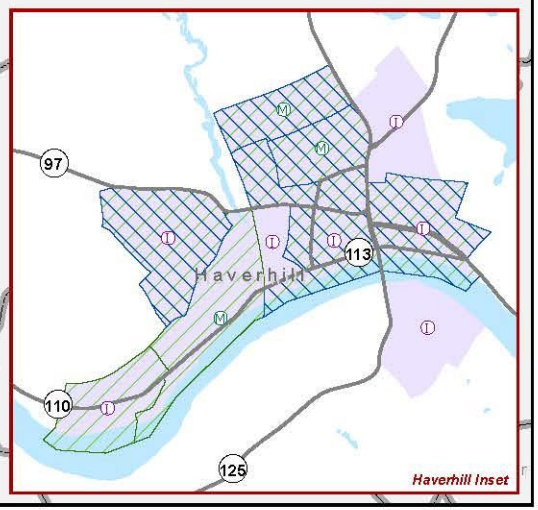
MVMPO: FFYs 2024 to 2028
Regional Target TIP Projects
Environmental Justice

Figure 3 - Regional Target Projects Relative to the Region and REJ+ Communities





1:165,000 1 inch equals 13,750 feet
0 3,437.5 6,875 13,750
Feet



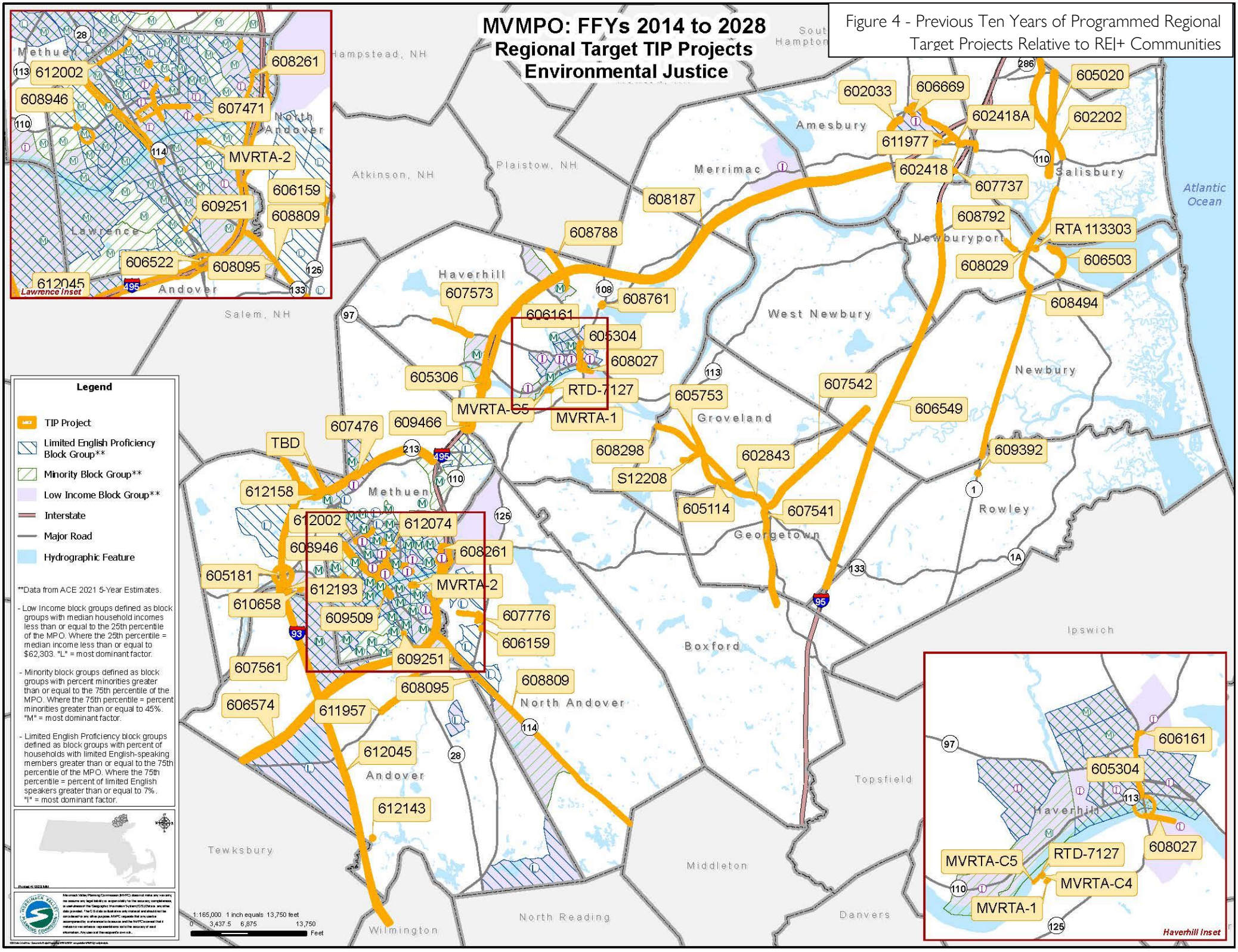

MVMPO: FFYs 2014 to 2028
Regional Target TIP Projects
Environmental Justice
Figure 4 - Previous Ten Years of Programmed Regional Target Projects Relative to REJ+ Communities
Lawrence Inset
Haverhill Inset
Legend
TIP Project
Limited English Proficiency Block Group**
Minority Block Group**
Low Income Block Group**
Interstate
Major Road
Hydrographic Feature
**Data from ACE 2021 5-Year Estimates.
- Low Income block groups defined as block groups with median household incomes less than or equal to the 25th percentile of the MPO. Where the 25th percentile = median income less than or equal to $62,303. "L" = most dominant factor.
- Minority block groups defined as block groups with percent minorities greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent minorities greater than or equal to 45%. "M" = most dominant factor.
- Limited English Proficiency block groups defined as block groups with percent of households with limited English-speaking members greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent of limited English speakers greater than or equal to 7%. "I" = most dominant factor.
1:165,000 1 inch equals 13,750 feet
0 3,437.5 6,875 13,750 Feet
Methuen
Lawrence
North Andover
Andover
Haverhill
Amesbury
Merrimac
Salisbury
Newburyport
West Newbury
Newbury
Groveland
Rowley
Georgetown
Boxford
Topsfield
Ipswich
Middleton
Danvers
North Reading
Wilmington
Tewksbury
Salem, NH
Plaistow, NH
Atkinson, NH
Hampstead, NH
Atlantic Ocean
608261
612002
608946
607471
MVRTA-2
606159
609251
608809
606522
608095
612045
608187
608788
607573
608761
606161
605304
608027
605306
RTD-7127
MVRTA-C5
MVRTA-1
607476
609466
TBD
612158
612074
605181
612193
610658
609509
607776
606159
607561
606574
611957
612143
602033
606669
602418A
605020
602202
611977
602418
607737
608792
RTA 113303
608029
606503
608494
607542
606549
605753
602843
609392
608298
S12208
605114
607541
606161
605304
608027
RTD-7127
MVRTA-C5
MVRTA-C4
MVRTA-1

Figure 3 depicts the distribution of regional target projects across the region relative to the state's Regional Environmental Justice Plus communities (REJ+ communities). Documentation regarding the methodology for the identification of REJ+ communities and additional resource maps can be found in the appendix.

Figure 4 depicts the distribution of projects over the last 10 years relative to the region and REJ+ communities.

Sustainability & Greenhouse Gas Emissions

Staff also prepare impact assessments to understand projects' greenhouse gas (GHG) emission impacts. Projects with advantageous GHG impacts may be considered for programming through the Congestion Mitigation and Air Quality (CMAQ) program through MassDOT's consultation process. The appendix provides an overview of the region's current air quality conformance determination, and overview of the greenhouse gas emission reduction assessment methodology, and results of the assessment.

Consistency Across Planning Documents

As a federal programming document, the TIP should align with priorities and goals documented in other regional and state plans. The projects included in the FY24-28 TIP are either specifically identified in MVMPO's Long Range Transportation Plan, are anticipated for inclusion in the FY2024 Metropolitan Transportation Plan, and/or are consistent with the objectives, goals, with the region's documented long-range planning vision. Additionally, each of the regional target projects included in this TIP cycle supports the current Statewide Bicycle Plan (2019) and Statewide Pedestrian Plan (2019). These plans seek to increase everyday walking and biking through project development while also increasing for safety vulnerable users. Each regional target project included in the TIP restores or significantly upgrades bicycle and pedestrian facilities. Table 5 illustrates identifies the relationship between programmed regional target projects, existing plans, and regional goals.

Table 5 - Regional Target Consistency with Other Planning Efforts and Long Range Goals

Regional Target Projects	Included in current (2020) LRTP?	Included in anticipated (2024) MTP?[1]	Consistent with Statewide Bicycle and Pedestrian Plans?	State of Good Repair	Safety	Mobility	Economic Vitality	Sustainability	Equity
RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	Yes	Yes	Yes	●		●			
INTERSECTION IMPROVEMENTS AT MERRIMACK STREET AND SOUTH BROADWAY (ROUTE 28)	Yes	Yes	Yes	●	●	●	●		●
INTERSECTION IMPROVEMENTS AT RIVERSIDE DRIVE AND BURNHAM ROAD	No	Yes	Yes	●	●	●			
INTERSECTION RECONSTRUCTION AT MARSTON STREET & EAST HAVERHILL STREET	No	Yes	Yes	●	●	●			●
CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	Yes	Yes	Yes	●	●	●	●		
RECONSTRUCTION ON ROUTE 97 (W. MAIN STREET) FROM MOULTON STREET TO GROVELAND T.L.	Yes	Yes	Yes	●	●	●	●	●	
INTERSECTION IMPROVEMENTS AT ROUTE 1 & MERRIMAC STREET	Yes	Yes	Yes	●	●		●		
RIVERWALK CONNECTOR TO THE SALISBURY POINT GHOST TRAIL	No	Yes	Yes		●	●		●	
ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	Yes	Yes	Yes	●		●			
RECONSTRUCTION ON ROUTE 133 (LOWELL STREET) FROM SHAWSHEEN ROAD TO ROUTE 28 (NORTH MAIN STREET)	Yes	Yes	Yes	●	●	●	●	●	

[1]Staff anticipate that the main goals of the 2020 LRTP will be retained in the current LRTP/MTP cycle.

Alignment with State Performance Measures

All programmed highway projects must advance statewide performance measures in some shape or form to ensure investment aligns desired outcomes. On the transit-side, projects must support a Regional Transit Authority's (RTA's) asset management targets and safety performance targets. This section describes the MVMPO's adopted performance targets and RTA targets.

Performance Measurements

Performance-based planning guides the 3C planning process. On the highway-side, states develop performance goals, guided by national goals. States and MPOs then coordinate to establish targets. MPOs may elect to develop their own targets, or may opt-in to statewide targets which is the typical practice in Massachusetts. Each highway-side performance measure and its associated target is summarized in the following sections per federal regulation. MassDOT tracks annual performance annually in its Performance Tracker page.

Safety Performance Measures (PM1)

The MVMPO has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2023. 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) in order to calculate five year, rolling average trend lines for all FHWA-defined safety measures.

Due to higher rates of speeding caused by decreased vehicle miles traveled (VMT) amid pandemic shutdowns in 2020 and the lingering impacts in 2021, 2020 and 2021 fatalities and serious injuries increased relative to previous years. This increase means MassDOT was unable to use a pure trendline approach to set CY2023 targets that "demonstrate constant or improved performance" as required by the Infrastructure Investment and Jobs Act (IIJA). Rather than adopt a target that depicts an increase in the trend line, MassDOT developed targets by projecting 2022 and 2023 fatalities and serious injuries numbers based on a rate of change consistent with recent trends. This methodology was developed to project a future downward trend without it being significantly influenced by the lingering impacts of the pandemic.

In recent years, MassDOT and the MVMPO 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, **Error! Bookmark not defined.**, 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 in order to address safety issues at these locations.

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

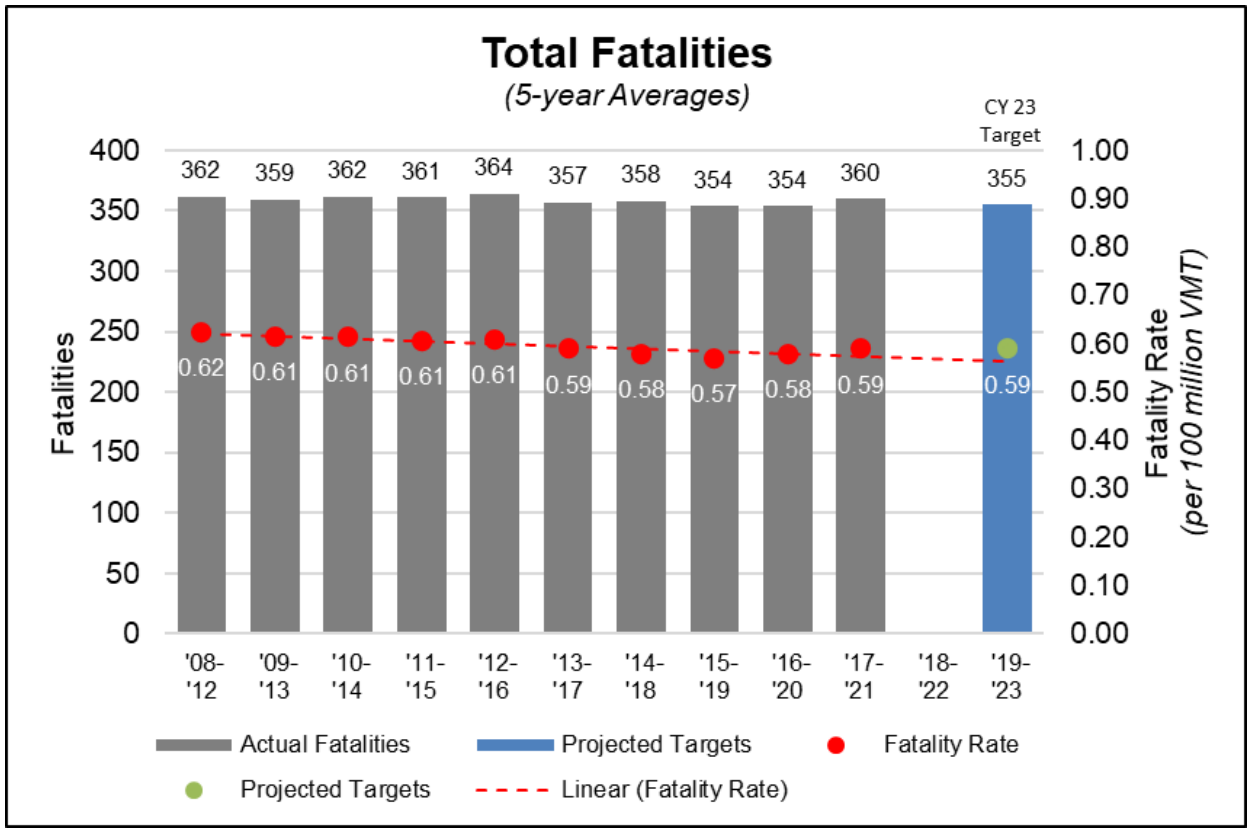
The safety measures MassDOT has established for CY 2023, and that **Error! Bookmark not defined.** has adopted, are as follows:

- Fatalities: The target number of fatalities for years CY 2023 is 355, down from an average of 360 fatalities for the years 2017-2021 [See Figure X for Our MPO vs. statewide comparison of the trend for this performance measure]

- Rate of Fatalities per 100 million VMT: The target fatality rate for years CY 2023 is 0.59, equivalent to the 0.59 average for years 2017-2021.

[2] https://www.mass.gov/lists/tracker-annual-performance-management-reports

Figure 5: Performance Measure 1, Safety, Total Fatalities



- Serious Injuries: The target number of incapacitating injuries for CY 2023 is 2,569, down from the average of 2,626 for years 2017-2021 [See Figure 7 for Our MPO vs. statewide comparison of the trend for this performance measure]

- Rate of Incapacitating Injuries per 100 million VMT: The incapacitating injury rate target for CY 2023 is 4.25 per year, down from the 4.30 average rate for years 2017-2021.

Figure 6: Performance Measure 1, Safety, Total Serious Injuries

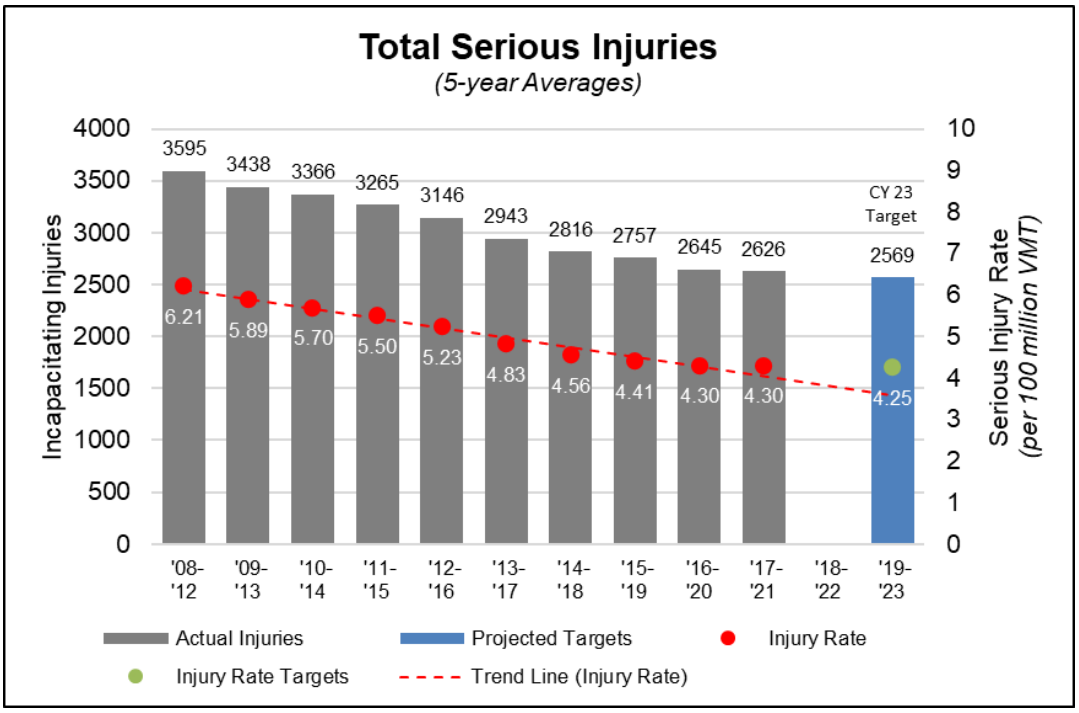


Figure 7: MPO and State Comparison of Total Fatalities Trend

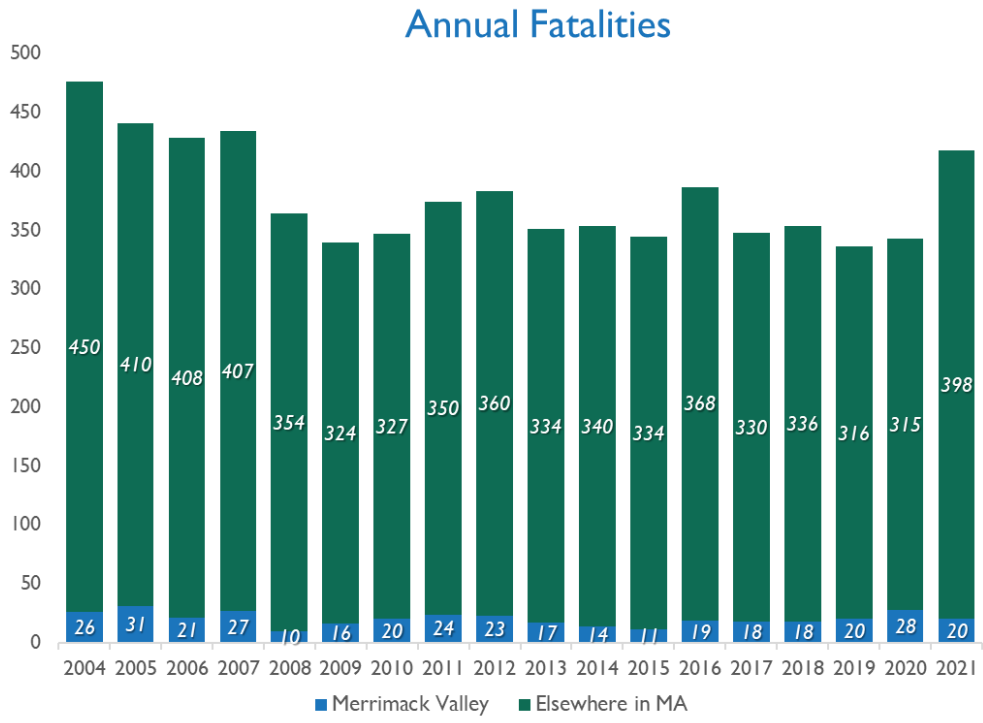


Figure 8: Merrimack Valley Five-Year Average Fatality Rate with Calendar Year 2023 Target Line

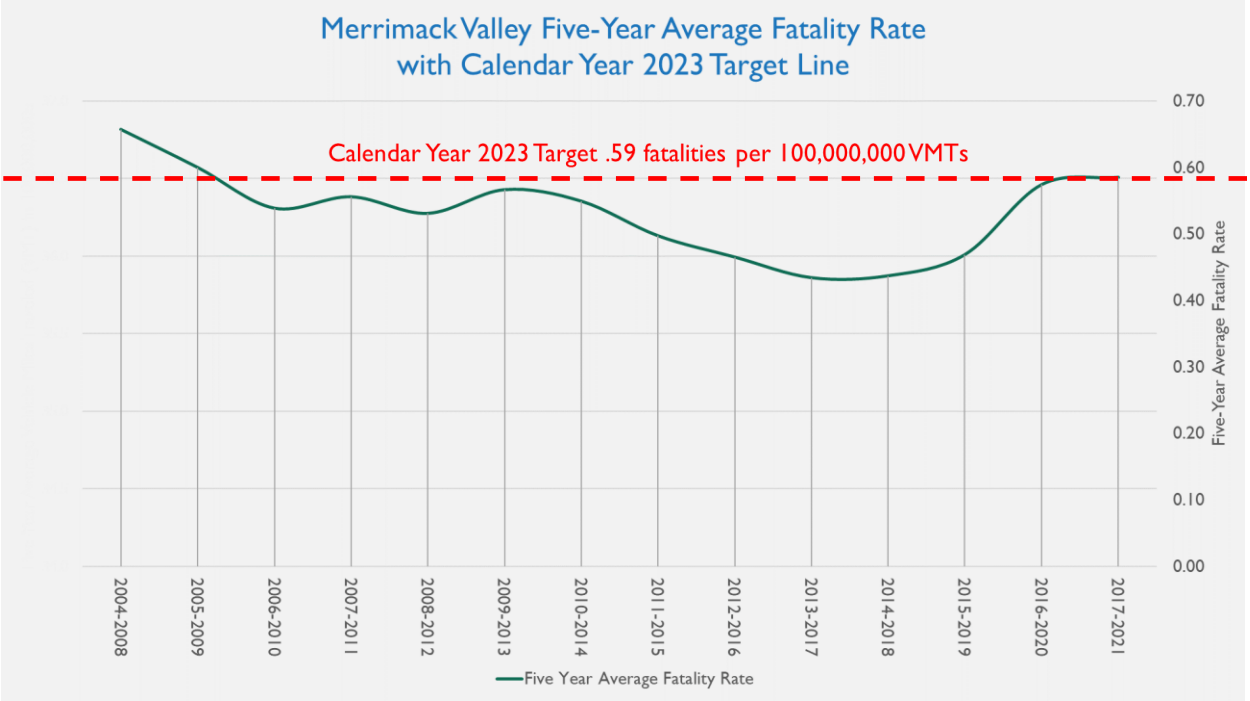


Figure 9: MPO and State Comparison of Annual Incapacitation Injuries Trend

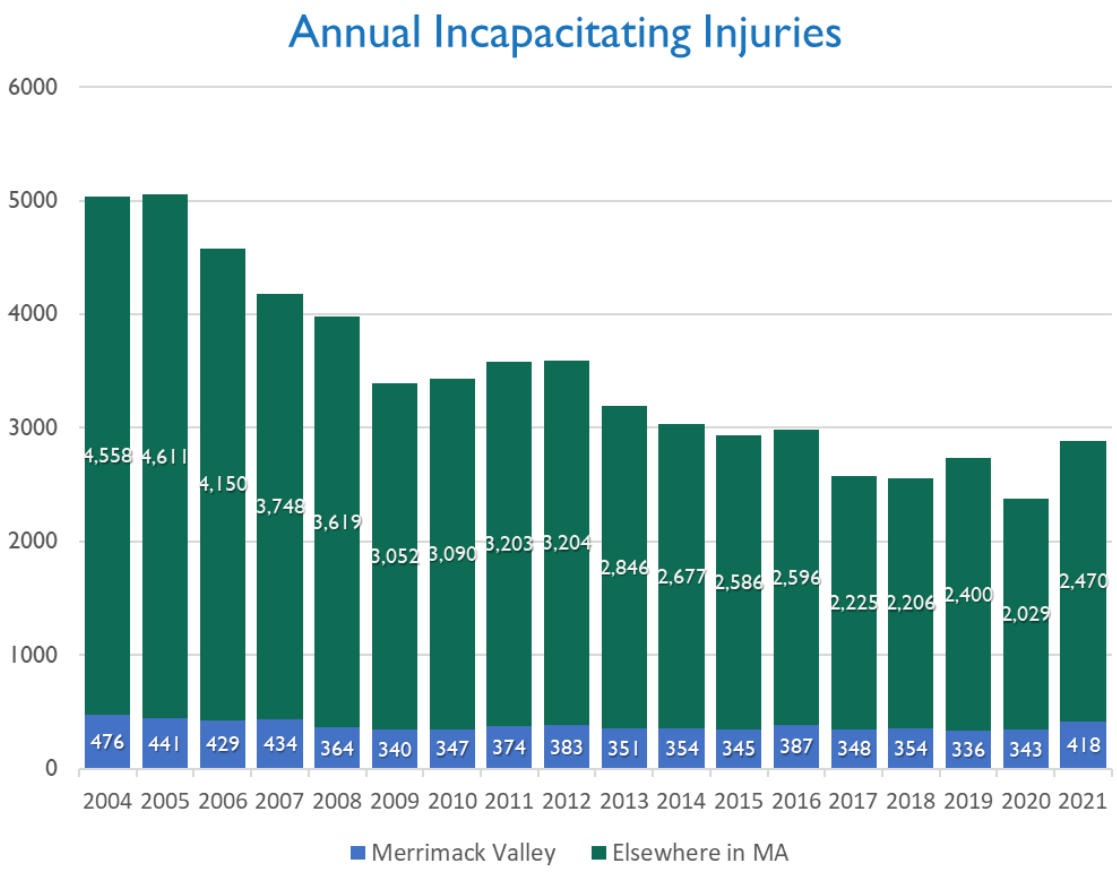
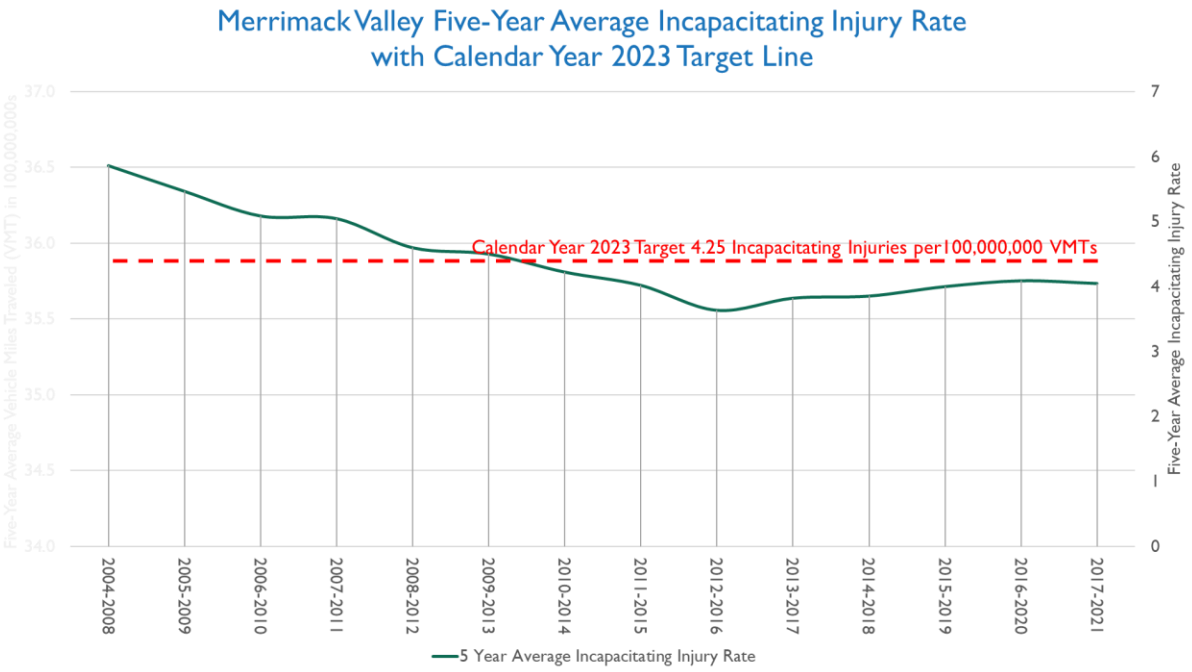
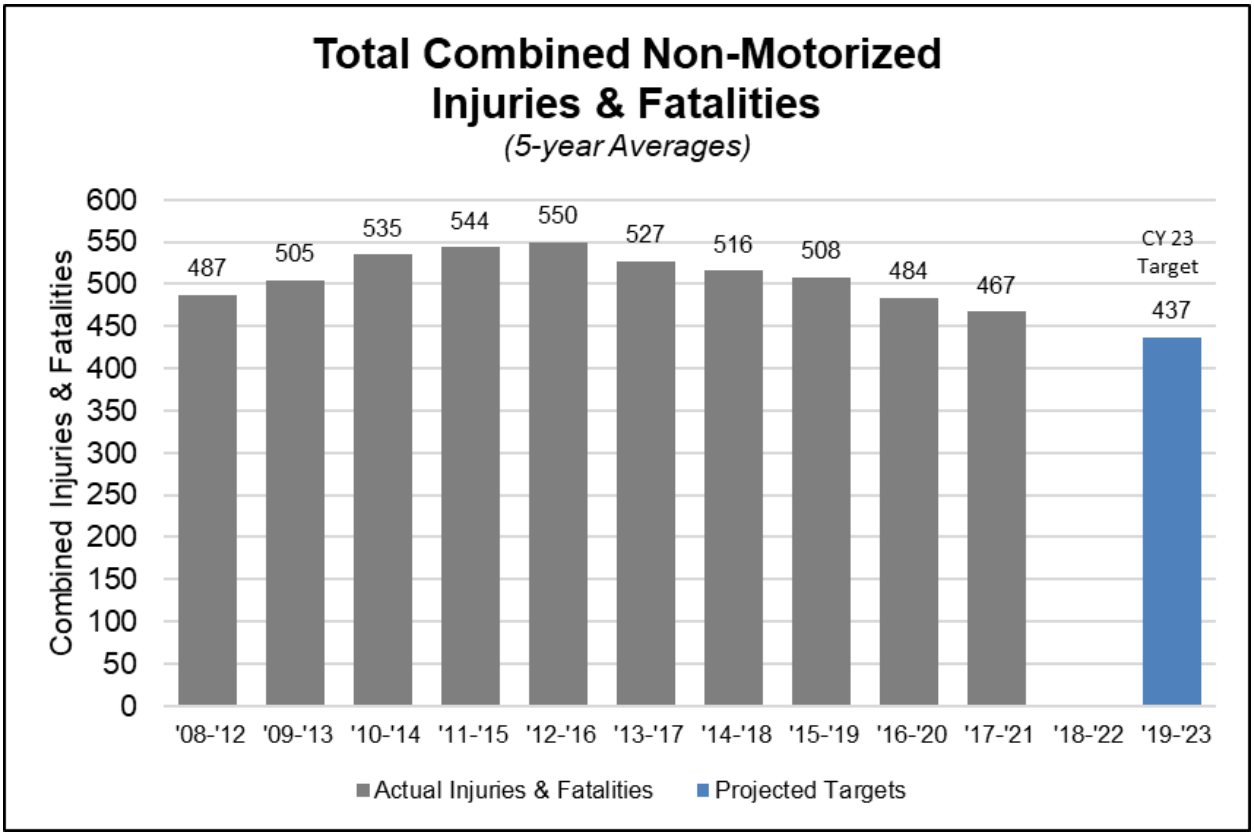


Figure 10: Merrimack Valley Five-Year Average Incapacitating Injury Rate with Calendar Year 2023 Target Line



- Total Number of Combined Incapacitating Injuries and Fatalities for Non-Motorized Modes: The CY 2023 target number of fatalities and incapacitating injuries for non-motorists is 437 per year, down from an average of 467 for years 2017-2021

Figure 11: Performance Measure 1, Safety, Total Combined Non-Motorized Injuries and Fatalities



Bridge & Pavement Performance Measures (PM2)

MVMPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide bridge and pavement performance measure targets set by MassDOT. 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: percent of bridges in good condition; percent of bridges in poor condition; percent of Interstate pavement in good condition; percent of Interstate pavement in poor condition; percent of non-Interstate pavement in good condition; and 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 (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.

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 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 6: Performance Measure 2, Bridge and Pavement Performance

Performance Measure	Current (2021)	2-year target (2024)	4-year target (2026)
Bridges in Good Condition	16%	16%	16%
Bridges in Poor Condition	12.2%	12%	12%
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)

MVMPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide reliability, congestion, and emissions performance measure targets set by MassDOT. 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.

MVMPO—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 like 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.

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 7: Performance Measure 3, Reliability, Congestion, & Emissions Performance Measures

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
% non-SOV (Boston UZA)	36.9%	38.8%	39.8%
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

Project Consistency with PM1, PM2, and PM3

As shown in Table 5, the majority of this TIP's programmed regional target projects have some positive benefit to safety, particularly for non-motorists such as pedestrians, bicyclists, and other rollers, generally through the provision of new facilities or the integration of protection for nonmotorist facilities, such as striped buffers or landscaped space between the vehicle travel lanes and nonmotorist zones of travel. Furthermore, the statewide highway program includes projects that develop new key nonmotorist facilities, such as missing segments of the Border to Boston Trail and the Manchester Rail Trail. Several roadway projects provide new paving on NHS roadway, such as the Salisbury Route 1 reconstruction project. The statewide program also includes various bridge and paving projects both on and off the interstate system. Several of the intersection projects included in this TIP anticipate a reduction in delay. While not all these projects fall within the NHS network, these projects are key links to NHS roadways and offer reliability

improvements. Staff has not used the RITIS platform to inform this cycle, but welcomes the opportunity to integrate this tool in travel time assessments for future scoring processes.

Relationship between TAM and PTASP

Achieving targets under the TAM plan helps to improve system reliability targets under the PTASP by maintaining vehicles in a state of good repair. Vehicles maintained in a state of good repair are less prone to breakdowns and crashes.

Transit Asset Management and Targets

Transit Asset Management (TAM) uses the condition of assets to guide the prioritization of transit funding for the purpose of maintaining a state of good repair. Federal legislation requires all recipients of FTA funding to develop a TAM Plan and update the plan every four years. Merrimack Valley Transit's (MeVa) latest TAM plan was prepared in 2022 and identified agency-specific TAM targets. Table 8 presents MeVa's latest FY22 TAM targets for the Merrimack Valley region.

Table 8 - MeVa Transit Asset Management Targets

Category	Performance Measure	2022 Target	2022 Performance	2022 Difference	2023 Target %
Rolling Stock	Over-the-Road-Bus	33%	0%	33%	0%
Rolling Stock	Bus	17%	4.92%	12.08%	10%
Rolling Stock	Cutaway	0%	0%	0%	13%
Equipment	Automobiles	0%	100%	-100%	100%
Equipment	Trucks and other Vehicles	8.33%	0%	8.33%	7%
Facility	Passenger/Parking Facilities	0%	0%	0%	0%
Facility	Administrative/Maintenance Facilities	0%	0%	0%	0%

Transit Safety Performance Targets

MeVa prepared its Public Transportation Agency Safety Plan (PTASP) in December 2022. This plan outlines MeVa's safety training program, establishes safety performance targets, a safety management policy, and safety performance monitoring. Historic safety data inform targets to maximize safety and proactively address hazards. Table 9 details MeVa's safety performance targets.

Table 9 - MeVa's Transit Safety Performance Targets[1]

Mode	Fatalities	Fatalities (per 100k VRM)	Injuries (Total)	Injuries (per 100k VRM)	Safety Events	Safety Events (per 100k VRM)	System Reliability (VRM)
Motor Bus	0	0	0	0	0	0	46,461
Commuter Bus	0	0	0	0	0	0	46,461
Demand Response	0	0	0	0	0	0	46,461

[1]VRM: "Vehicle Revenue Miles"

Chapter 3: TIP Funding

Federal Highway Administration Program Funding

The FFY24-28 TIP's highway program is developed based on state funding apportionment formulas defined in federal surface transportation legislation—the most recent being the Infrastructure Investment and Jobs Act (IIJA, more commonly referred to as the Bipartisan Infrastructure Legislation or BIL). From this apportionment, the state of Massachusetts accounts for federally-required program set asides, pass-throughs, and Grant Anticipation Notes (GANSs payments) for debt service on its accelerated bridge program. The remaining apportioned funding is budgeted to support statewide and regional priorities.

After accounting for statewide priorities, regions are provided obligation authority—the authority to program federal funds—based on a sub-allocation formula approved by the Massachusetts Association of Regional Planning Agencies (MARPA). About 30 percent of the state's overall federal apportionment is allocated to regions from year to year, ranging from 27 to 35 percent in the subject TIP cycle. The MARPA sub-allocation to the Merrimack Valley encompasses approximately 4.43 percent of total regional funding.

Most federal aid funnels through the state and into regional projects via program vehicles that require local matching funds—generally 20 percent of a project's total federal aid cost. MassDOT typically provides required project matches. As such, most regional projects are funded with an 80-20 federal-state share; however, some larger projects include additional local funding sources.

Typically, the municipality or primary proponent of a project funds a project's design, although TIP funding may be used to support a project's design costs, if approved by the MPO Board.

Table 10 shows the MVMPO's anticipated obligation authority between FY24 and FY28.

Table 10 – Merrimack Valley Anticipated Regional Target Obligation Authority for Highway Projects

Year	Federal (80 percent)	State (20 percent)	Total
2024	$10,775,023	$2,693,756	$13,468,779
2025	$10,591,979	$2,647,995	$13,239,974
2026	$10,332,845	$2,583,211	$12,916,056
2027	$12,794,409	$3,198,602	$15,993,012
2028	$13,035,237	$3,258,809	$16,294,046
Total	$57,529,493	$14,382,373	$71,911,867

Federal Transit Administration Program Funding

Federal aid for public transit is allocated by formula to urbanized areas (UZAs). MassDOT functions as the recipient of transit federal aid for Boston's urbanized area and applies a formula that distributes programming authority across regional transit authorities. This formula considers passenger-miles traveled and population density, among other factors.

Transit-side federal aid supports both capital and operating needs, both which are programmed in the TIP. Many operating programs require a 50 percent match, which is generally provided by MassDOT. Table 11 shows anticipated transit funding and state match assistance between FY24-28 based on MeVa's program.

Table 11 - Anticipated Federal and State Aid for MeVa Transit, FFY2024-2028

	Federal	State
2024	$18,829,320	$6,064,355
2025	$7,155,357	$2,345,767
2026	$6,519,666	$2,204,154
2027	$27,533,060	$7,602,640
2028	$8,613,500	$2,755,500
Total	$68,650,903	$20,972,416

Federal Aid Programs

As noted, federal surface transportation legislation authorizes the use of federal aid via several transportation funding programs administered by the Federal Highway Administration (FHWA) and Federal Transit Administrations (FTA). Each funding program has an array of eligible uses, as prescribed by the Infrastructure Investment and Jobs Act (IIJA, more commonly referred to as the Bipartisan Infrastructure Legislation or BIL). Table 12 and Table 13 detail the various more-common federal aid programs and their associated eligible uses. Note that some eligible uses extend beyond typical capital improvements.

Federal Highway Administration Programs

Table 12 - FHWA Funding Programs (source: https://www.fhwa.dot.gov/specialfunding/)

Program	Common Acronym	Programming Authority	Eligible Uses
Bridge Formula Program	BFP	Apportioned	Replacement, rehabilitation, preservation, or construction of bridges on public roads. 15% of funds are reserved for non-Federal-aid highway bridge projects.
Bridge Investment Program	BIP	Discretionary	Replacement, rehabilitation, or preservation of bridges in the National Bridge Inventory (NBI). Culvert improvements that improve flood control and/or aquatic habitat connectivity.
Carbon Reduction Program	CRP	Apportioned	Capital projects or strategic products focused on reduction of transportation emissions.
Congestion Mitigation and Air Quality Improvement	CMAQ	Apportioned	Wide range of emission-reducing, air-quality maintenance, or air-quality improvement projects. Project must be located in air quality nonattainment area or maintenance areas for ozone, carbon monoxide, and small particulate matter
Charging and Fueling Infrastructure Program	CFI	Discretionary	Deployment of alternative fueling and associated infrastructure in designated alternative fuel corridors as well as communities. Operating assistance for five years after installation.
Federal Land Access Program	FLAP	Discretionary	Improvements to transportation facilities that provide access to, are adjacent to, or located within federal lands.
Highway Safety Improvement Program	HSIP	Apportioned	Implementation of infrastructure-related highway safety improvements
Nationally Significant Multimodal Freight & Highway Projects	INFRA	Discretionary	Implementation of multimodal freight and highway projects of national or regional significance to improve safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas.
National Highway Freight Program	NHFP	Apportioned	Projects that improve the efficient movement of freight on the National Highway Freight Network

Table 10 - FHWA Funding Programs (Continued)

Program	Common Acronym	Programming Authority	Eligible Uses
National Highway Performance Program	NHPP	Apportioned	Projects that support the condition and performance of the National Highway System, including the replacement or rehabilitation of the system's capital assets.
National Infrastructure Project Assistance	MEGA	Discretionary	Multimodal, multijurisdictional projects of regional or national significance.
Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation	PROTECT	Combination	Projects that increase the resiliency of the transportation system, including coastal resiliency projects.
Rebuilding American Infrastructure with Sustainability and Equity	RAISE	Discretionary	Assistance for communities with projects that result in local or regional sustainability or equity impacts.
Reconnecting Communities Pilot Program	RCP	Discretionary	Planning support, construction, and technical assistance to communities divided by transportation infrastructure.
Rural Surface Transportation Grants	RSTG	Discretionary	Highway, bridge, tunnel, freight, safety, or bridge project that supports economic growth and quality of life in rural areas and/or integrated transportation demand management, mobility management, or on-demand systems that support economic growth and quality of life.
Safe Streets and Roads for All	SS4A	Discretionary	Planning, design, and construction of projects identified in a comprehensive safety action plan; or, the development of a safety action plan.
Strengthening Mobility and Revolutionizing Transportation (SMART) Grants	SMART	Discretionary	Planning and implementation of demonstration projects that leverage technology to improve mobility and access.
Surface Transportation Block Grant	STBG	Apportioned	A broad range of surface transportation capital needs, including roads; transit, sea, and airport access; and vanpool, bicycle, and pedestrian facilities.
Transportation Alternatives Program	TAP	Apportioned	A variety of smaller-scale transportation projects, such as bicycle, pedestrian and trail facilities. Encompasses eligible activities from the former Safe Routes to School (SRTS) program.

Federal Transit Administration Programs

Table 13 - FTA Funding Programs (source: https://www.fhwa.dot.gov/specialfunding/)

Program	Common Acronym	Programming Authority	Eligible Uses
Joint Development Program	§5302(3)(G)	Combination	Purchase or rehabilitation of buses and related equipment that support fixed route bus service, disbursed based on formula. Additional funds available through competitive grant programs, one of which only low and zero-emission vehicles are eligible.
Urbanized Formula Grants	§5307	Apportioned	Capital expenditures on transit assets in urbanized areas (UZA)
Fixed Guideway Capital Investment Grants	§5309 or CIG	Discretionary	Transit projects that either are rail or a mode that emulates fixed-rail, including bus rapid transit and ferries. For New Starts and Small Starts, construction must be corridor based.
Enhanced Mobility of Seniors with Disabilities	§5310	Apportioned	Transit projects that meet the needs of seniors or go beyond the requirements of the 1990 Americans with Disabilities Act. A state is the direct recipient for rural areas.
Public Transportation Innovation Program	§5312	Discretionary	Broad range of activities that demonstrate innovation in public transportation, including capital projects and products that assist in operations and asset management.
Emergency Relief Program	§5324	Discretionary	Capital projects that protect, repair, replace, or reconstruct equipment and facilities that are in danger or, or have been impacted, by an emergency (as recognized by the federal government). Temporary operating assistance also available.
State of Good Repair and Rail Vehicle Replacement Program	§5337	Combination (formula based available to only urbanized areas)	Projects that maintain, rehabilitate, and replace capital assets including rail rolling stock, as well as projects that implement transit asset management plans.

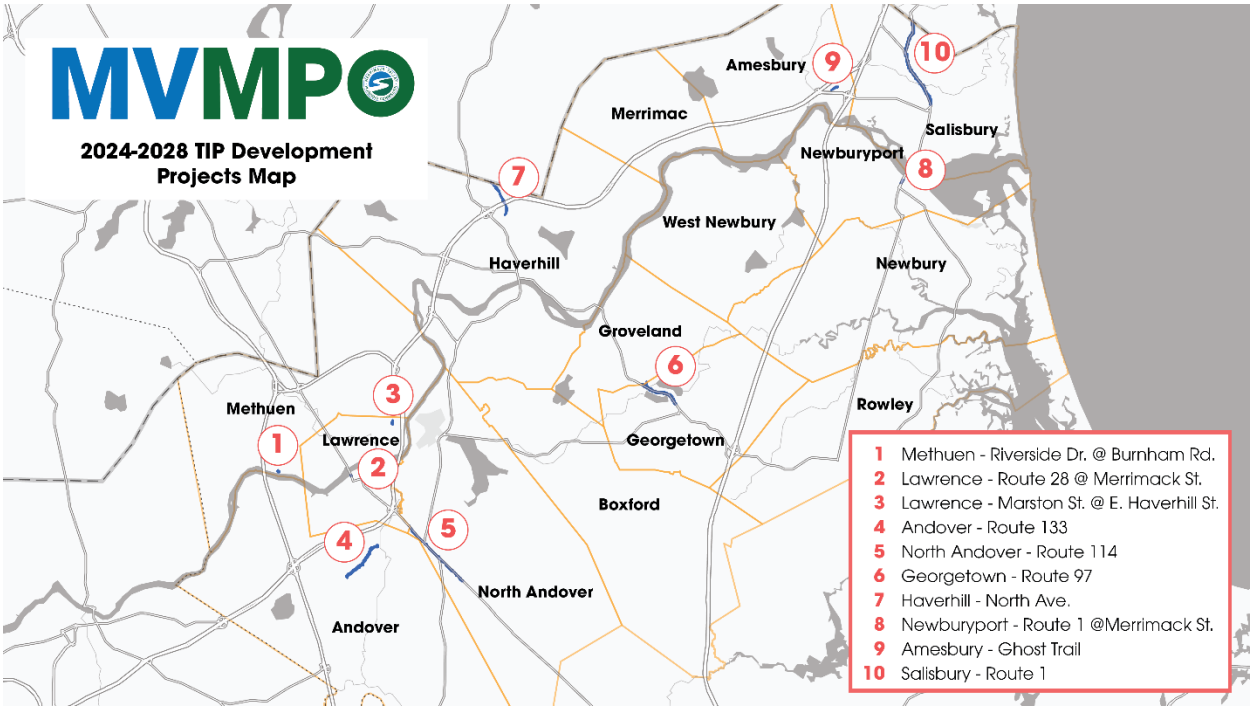
Table 11 - FTA Funding Programs (Continued)

Program	Common Acronym	Programming Authority	Eligible Uses
Bus and Bus Facilities Program	§5339	Combination	Purchase or rehabilitation of buses and related equipment that support fixed route bus service, disbursed based on formula. Additional funds available through competitive grant programs, one of which only low and zero-emission vehicles are eligible
Electric or Low Emitting Ferry Pilot Program		Discretionary	Purchase of electric or low-emitting ferries, or ferry electrification that results in reduction of emissions.
Innovative Coordination Access & Mobility Pilot Program		Discretionary	Financing of projects that support the transportation disadvantaged or improve non-emergency medical transportation services, including coordination technology and access improvements to one-call/one-click services.

Chapter 4: TIP Highway Project Descriptions

This chapter provides descriptions for programmed highway project's across the TIP's five-year funding cycle. Figure 12 depicts the general locations of regional target projects.

Figure 12 - General Project Locations for Regional Target Projects



Regional Target Highway Project Descriptions

The following project section provides brief project profile sheets with general descriptions for each regional target project programmed in this TIP cycle. Project descriptions include Transportation Evaluation Scores, MassDOT's Project Review Committee Scores, and GHG impacts where available.

Project Name	MassDOT ID #	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
1. INTERSECTION IMPROVEMENTS AT RIVERSIDE DRIVE AND BURNHAM ROAD	610658	Methuen	7.87/17.75	N/A	1,605,981

Description: This project proposes to add sidewalks on portions of the north and south side of Riverside Drive. The roadway will also be milled and overlaid with new asphalt, and new striping will allow for 5-foot wide bike lanes separated with 3-foot buffers and new dedicated left turn lanes on Riverside Drive. Rapid flashing beacons will be added to improve pedestrian safety for crossings of Riverside Drive away from the intersection, and the intersection itself will be signalized and will include pedestrian signals.

Current Readiness Year Determination: 2024
Program Year: 2024

General Project Area Photograph: *Note –area photograph excludes crossings proposed for Rapid Flashing Beacons, which fall just east and west of the included photograph.*

Project Name	MassDOT ID #	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
2. INTERSECTION IMPROVEMENTS AT MERRIMACK STREET AND SOUTH BROADWAY (ROUTE 28)	609509	Lawrence	13.00/17.75	N/A	1,457,695

Description: This project proposes to add fully actuated traffic signals to reduce vehicle delays at the intersection, as well as reconstruct sidewalks and associated pedestrian ramps to align with ADA requirements. The project proposes to stripe bicycle lanes and better define travel lanes. Finally, the project includes resurfacing the existing pavement within area of work.

Current Readiness Year Determination: 2024
Program Year: 2024

General Project Area Photograph: *Note – project extends beyond the confines shown in the photograph.*

Project Name	MassDOT ID #	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
3. INTERSECTION RECONSTRUCTION AT MARSTON STREET & EAST HAVERHILL STREET	610923	Lawrence	10.13/17.75	N/A	65,077

Description: The scope for this project includes the construction of a fully actuated traffic signal, with associated geometric improvements the minimize crossing distances for pedestrians and bicyclists, continuous 8-foot sidewalks and ADA curb ramps as well as a 10-foot shared use path throughout the project area. The project will include roadway resurfacing and thermoplastic pavement markings within the scope area.

Current Readiness Year Determination: 2024
Program Year: 2024

General Project Area Photograph:

Project Name	MassDOT ID #	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
4.RECONSTRUCTION ON ROUTE 133 (LOWELL STREET) FROM SHAWSHEEN ROAD TO ROUTE 28 (NORTH MAIN STREET)	611957	Andover	12.03/17.75	N/A	N/A

Description: This project proposed the reconstruction of Route 133 between Shawsheen Road and North Main Street, including the improvement of several key intersections and the provision of pedestrian and bicycle facilities along the roadway. The project's identification number is new in this cycle; a previous project has been deprogrammed and replaced with the subject project to account for an expanded scope.

Current Readiness Year Determination: 2028
Program Year: 2028

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
5. CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	608095	North Andover	12.42/17.75	74/100	7,407,526

Description: This project proposes the reconstruction of Route 114, including the provision of a shared use path on the south side of the roadway. Each intersection will be reconstructed to improve safety, including the provision of upgraded signals at existing signalized intersections and two new signals (Route 114 and Royal Crest Drive, Merrimack College and Hillside Road). Adaptive signal control will be used to optimize traffic flow based on real time traffic demand collected by the system. Finally, the project proposes additional site work such as utility work, drainage improvements, culvert replacement, and landscaping.

Current Readiness Year Determination: 2025
Program Year: 2025-2029

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
6.RECONSTRUCTION ON ROUTE 97 (W. MAIN STREET) FROM MOULTON STREET TO GROVELAND T.L.	602843	Georgetown	9.03/17.75	N/A	2,399

Description: This project proposes improvements to West Main Street (Route 97), including roadway reconstruction, intersection realignment, sidewalk reconstruction with new ADA compliant ramps, a drainage system, and a shared use path. The project also includes an additional path connector on King Street between the new path proposed on West Main Street and the multiuse path in Groveland along the railroad bed. The project will also include signage and pavement markings.

Current Readiness Year Determination: 2025
Program Year: 2025-2026

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
7. ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	613092	Haverhill	8.58/17.75	N/A	214,372

Description: This project proposes to reconstruct North Avenue between Main Street (Route 125) and the New Hampshire Border. The project will add ADA compliant sidewalks, granite curbs, and bicycle lanes. The project will narrow the existing travel lanes and will improve drainage. Some utilities may also be relocated in conjunction with the project. The project will reconstruct existing intersections. The Gile Street intersection will receive geometric improvements and a mini-roundabout will be added at Marsh Avenue. The project will replace the Snows Brooks Bridge and the Frye Pond dam will be removed to return Snows Brooks to its natural condition.

Current Readiness Year Determination: 2027
Program Year: 2028-2030

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
8. INTERSECTION IMPROVEMENTS AT ROUTE 1 & MERRIMAC STREET	608029	Newburyport	8.37/17.75	N/A	N/A

Description: The project will install traffic control signals at the intersection of the Route 1 northbound and southbound ramps and Merrimac Street. The project will include sidewalks and crosswalks, as well as bicycle accommodations.

Current Readiness Year Determination: 2027
Program Year: 2027

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
9. RIVERWALK CONNECTOR TO THE SALISBURY POINT GHOST TRAIL	611977	Newburyport	6.85/17.75	N/A	N/A

Description: This project proposes to connect Salisbury's Ghost Trail with the Amesbury Riverwalk. Currently, no direct, safe, off-street connection exists. A trail connector will cross Elm Street to travel behind the Carriage Town Shopping Center. The connector will continue adjacent to the back of the shopping center in a utility line easement and then link into the existing Riverwalk terminus.

Current Readiness Year Determination: 2027
Program Year: 2027

General Project Area Photograph:

Project Name	MassDOT ID	Municipality	Transportation Evaluation Criteria Score	Project Review Committee Score	GHG Reduction Impact (kg/yr)
10. RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	602202	Salisbury	11.72/17.75	61/100	27,932

Description: This project proposes the reconstruction of a 2.5 mile stretch of Lafayette Road from Route 1A (Beach Road) to the New Hampshire state border. The project scope includes pavement improvements following utility work (to be completed by the town), including pedestrian and bicycle facilities, roundabouts at Toll Road and Route 286, and geometric realignment of the Forest Road intersection.

Current Readiness Year Determination: 2023
Program Year: 2023-2024

General Project Area Photograph:

Statewide Highway Project Descriptions

The following list provides MassDOT-generated project descriptions for the various statewide projects programmed in this TIP cycle. Note that projects programmed to receive both statewide and regional target funds are described in the previous regional target fund section. General information is provided in cases where limited information is available in MassDOT's Project Information System.

- **Haverhill - Bridge Replacement over the Merrimack River and Abandoned Boston and Maine Railroad:** This project supports replacement of the Basiliere Bridge in Haverhill with potentially a new lane configuration and pedestrian and bicycle accommodations.
- **Andover & Lawrence - Bridge Rehabilitation on I-495 over Route 28 and MBTA Tracks:** The existing 3-span simply supported superstructures will be replaced with continuous superstructures to eliminate the deck joints. The structure will be widened to accommodate a future added lane and increase shoulder width to current standards.
- **Georgetown & Boxford - Border to Boston Trail from Georgetown Road to West Main Street (Route 97):** The proposed project consists of the construction of The Border to Boston Shared Use Path in the Towns of Boxford and Georgetown. The corridor extends from Georgetown Road in Boxford north to West Main Street (Route 97) in Georgetown. The trail is approximately 2.4 miles and will be comprised entirely of an off-road shared use trail facility utilizing former railroad corridor, utility right of way and town right of way. The Southern Georgetown section will make up part of the larger Border to Boston Trail system which is nearly 30 miles in length and links eight Essex County communities.
- **Lawrence - Lawrence Manchester Rail Trail:** The proposed improvements include redeveloping the inactive Lawrence Manchester Rail Corridor into a shared-use path / alternate transportation corridor (ATC) for pedestrian and bicycle accommodations. The 1.40 mile project begins at Merrimack Street in Lawrence and extends to the Methuen/Lawrence City Line. The ATC will connect Merrimack Street to the south and Manchester Street Park, the Spicket River Greenway, and the future Methuen Rail Trail to the north. The project also includes improving 3 intersections for at-grade crossings, and developing additional access points to the Rail Trail from existing developments and parks. There are four bridges along the Right-of-Way that will be improved as part of the project including deck replacements at bridges over the South Canal and the Merrimack River, complete replacement of the Lowell Street Bridge that spans the Right of Way, and a superstructure replacement at the Manchester Street Bridge Crossing.
- **Haverhill & Metheun - I-495 Bridge Replacement over the Merrimack River and Route 110:** This project envisions replacing the existing bridge spanning the Merrimack River to support ongoing travel on the interstate.
- **Lawrence - Arlington Day Safe Routes to School:** This project provides infrastructure improvements to make walking and bicycling to school safer for Arlington Day's students.
- **Andover-Tewksbury: Interstate Maintenance and Related Works on I-93:** This project proposes preservation and maintenance of the interstate to support ongoing needs.
- **Groveland – Improvements at Dr. Bagnall Elementary School:** This project provides infrastructure improvements to make walking and bicycling to school safer for Bagnall Elementary's students.

Chapter 5: TIP Financial Plan

To make best use of regional obligation authority following programming, MVMPO expects cooperation, communication, and expeditious review processed by agencies with the responsibility of overseeing implementation. Expeditious and cooperative oversight allows the program's financial plan to remain in balance.

Financial Summaries

As noted in Chapter 3, a formula determines MVMPO's federal aid regional target obligation authority for highway side projects. The Merrimack Valley receives 4.4296% of the state's total regional highway funding apportionment. Each year, MVMPO may program projects up to an amount specified by MassDOT related to the apportionment formula. MassDOT's approach to project programming assumes a 4% inflation rate year over year, meaning the total cost of a project is assumed to be greater in an outyear compared to the present fiscal year. The TIP is financially constrained, per 23 CFR Part 450.324, meaning that annual programmed totals must not exceed combined estimates of state and federal aid.

Table 14 summarizes total programmed spending for regional target projects. Note that MVMPO staff anticipate that unprogrammed reserves will be allocated to an envisioned capital purchase program. In the event capital purchase projects are not available, in demand, or eligible for federal aid expenditures, unprogrammed balances may be flexed to FTA to support transit needs.

Table 14 - Regional Target Program Summary

Fiscal Year	Obligation Authority	Programmed Funding Totals	Unprogrammed Funds
FFY24	$13,468,779	$12,850,931	$617,848
FFY25	$13,239,974	$13,039,974	$200,000
FFY26	$12,916,056	$12,716,056	$200,000
FFY27	$15,993,011	$15,793,011	$200,000
FFY28	$16,294,046	$16,094,046	$200,000
Total	**$71,911,866**	**$70,494,018**	**$1,417,848**

A significant amount of TIP funding is also allocated to support public transportation. Table 15 summarizes the programmed federal and state aid in support of the Merrimack Valley region's transit system.

Table 15 - Transit Aid Program Summary

Fiscal Year	Total Programmed Funds	Federal Funds	State Funds	Other Funds
FFY24	$25,753,675	$18,829,320	$6,064,355	$20,000
FFY25	$19,071,124	$15,915,357	$3,135,757	$20,000
FFY26	$10,143,820	$6,519,666	$3,604,154	$20,000
FFY27	$33,585,700	$27,983,060	$5,602,640	
FFY28	$13,395,000	$8,613,500	$4,755,500	$26,000
Total	$101,949,319	$77,860,903	$23,162,406	$86,000

The following pages summarize the region's target program and transit program for FFY24-28. In addition to regional target funds and transit funds, the region is the beneficiary of federal and state aid intended for projects of statewide significance, such as bridge reconstruction and preservation, interstate maintenance, and major trail projects.

Table 16 shows programmed highway funds over the program's five-year horizon. Table 17 depicts programmed transit funds.

Table 16 - FFY24-28 Programmed Roadway Investments

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2024								$350,614,864	$282,449,340	$68,165,524
Section 1A / Regionally Prioritized Projects								$12,850,931	$10,280,745	$2,570,186
Roadway Reconstruction								$9,405,047	$7,524,038	$1,881,009
2024	602202	Merrimack Valley	Salisbury	SALISBURY- RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	4	STBG	$23,503,619	$7,665,815	$6,132,652	$1,533,163
2024	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	STBG	$45,240,498	$0	$0	$0
2024	610923	Merrimack Valley	Lawrence	LAWRENCE- INTERSECTION RECONSTRUCTION AT MARSTON STREET & EAST HAVERHILL STREET	4	STBG	$1,739,232	$1,739,232	$1,391,386	$347,846
Intersection Improvements								$3,445,884	$2,756,707	$689,177
2024	609509	Merrimack Valley	Lawrence	LAWRENCE- INTERSECTION IMPROVEMENTS AT MERRIMACK STREET AND SOUTH BROADWAY (ROUTE 28)	4	STBG	$1,425,381	$1,425,381	$1,140,305	$285,076
2024	610658	Merrimack Valley	Methuen	METHUEN- INTERSECTION IMPROVEMENTS AT RIVERSIDE DRIVE AND BURNHAM ROAD	4	STBG	$2,020,503	$2,020,503	$1,616,402	$404,101
Section 1B / Earmark or Discretionary Grant Funded Projects								$214,880,391	$173,607,364	$41,273,027
Bridge On-System NHS NB								$206,365,136	$165,092,109	$41,273,027
2024	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	HIP-BR	$300,000,000	$206,365,136	$165,092,109	$41,273,027
Earmark Discretionary								$8,315,255	$8,315,255	$0
2024	610924	Merrimack Valley	Lawrence	LAWRENCE- ROADWAY RECONSTRUCTION ON AMESBURY STREET	4	CRRSAA	$8,315,255	$8,315,255	$8,315,255	$0
Resiliency Improvements								$200,000	$200,000	$0
2024	S12836	Merrimack Valley	Newburyport	NEWBURYPORT- FEASIBILITY STUDY OF PLUM ISLAND TURNPIKE IMPROVEMENTS	4	FLAP	$200,000	$200,000	$200,000	$0

Section 2A / State Prioritized Reliability Projects								$101,988,926	$81,591,141	$20,397,785
Bridge On-system NHS								$101,988,926	$81,591,141	$20,397,785
2024	605304	Merrimack Valley	Haverhill	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)	4	NHPP-PEN	$150,000,000	$20,600,000	$16,480,000	$4,120,000
2024	606522	Merrimack Valley	Multiple	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	4	NHPP-PEN	$166,453,746	$60,000,000	$48,000,000	$12,000,000
2024	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP	$300,000,000	$5,270,520	$4,216,416	$1,054,104
2024	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP-PEN	$300,000,000	$16,118,406	$12,894,725	$3,223,681
Section 2B / State Prioritized Modernization Projects								$2,543,975	$2,289,578	$254,398
Roadway Reconstruction								$2,543,975	$2,289,578	$254,398
2024	602202	Merrimack Valley	Salisbury	SALISBURY- RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	4	HSIP	$23,503,619	$2,543,975	$2,289,578	$254,398
Section 2C / State Prioritized Expansion Projects								$18,350,641	$14,680,513	$3,670,128
Bicycle and Pedestrian								$18,350,641	$14,680,513	$3,670,128
2024	607541	Merrimack Valley	Multiple	GEORGETOWN- BOXFORD- BORDER TO BOSTON TRAIL, FROM GEORGETOWN ROAD TO WEST MAIN STREET (ROUTE 97)	4	CMAQ	$4,550,641	$4,550,641	$3,640,513	$910,128
2024	608930	Merrimack Valley	Lawrence	LAWRENCE- LAWRENCE MANCHESTER RAIL CORRIDOR (LMRC) RAIL TRAIL	4	CMAQ	$27,738,600	$13,800,000	$11,040,000	$2,760,000

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2025								$209,324,386	$71,538,262	$137,786,124
Section 1A / Regionally Prioritized Projects								$13,039,974	$10,771,283	$2,268,691
Roadway Reconstruction								$13,039,974	$10,771,283	$2,268,691
2025	602843	Merrimack Valley	Georgetown	GEORGETOWN- RECONSTRUCTION ON ROUTE 97 (W. MAIN STREET) FROM MOULTON STREET TO GROVELAND T.L.	4	STBG	$11,179,434	$6,287,978	$5,030,382	$1,257,596
2025	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	HSIP	$45,240,498	$3,393,037	$3,053,733	$339,304
2025	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	STBG	$45,240,498	$3,358,959	$2,687,167	$671,792
Section 2A / State Prioritized Reliability Projects								$126,628,601	$53,172,606	$73,455,995
Bridge On-system NHS								$109,218,848	$53,172,606	$56,046,242
2025	605304	Merrimack Valley	Haverhill	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)	4	NHPP-PEN	$150,000,000	$30,900,000	$24,720,000	$6,180,000
2025	606522	Merrimack Valley	Multiple	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	4	NHPP-PEN	$166,453,746	$11,246,386	$8,997,109	$2,249,277
2025	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP-PEN	$300,000,000	$24,319,371	$19,455,497	$4,863,874
2025	612158	Merrimack Valley	Methuen	METHUEN- BRIDGE REPLACEMENT, M-17-026, ROUTE 213 EB/WB OVER THE METHUEN RAIL TRAIL	4	NGBP	$4,605,891	$4,605,891	$0	$4,605,891
2025	612193	Merrimack Valley	Andover	ANDOVER- BRIDGE PRESERVATION, A-09-022, I-93 OVER MERRIMACK RIVER	4	NGBP	$38,147,200	$38,147,200	$0	$38,147,200
Interstate Pavement								$0	$0	$0
2025	612045	Merrimack Valley	Andover	ANDOVER- TEWKSBURY- INTERSTATE MAINTENANCE AND RELATED WORKS ON I-93	4	NHPP-I	$19,211,315	$0	$0	$0
Bridge On-system Non-NHS								$17,409,753	$0	$17,409,753
2025	612143	Merrimack Valley	Andover	ANDOVER- BRIDGE REPLACEMENT, A-09-015, TEWKSBURY STREET OVER MBTA/BMRR	4	NGBP	$17,409,753	$17,409,753	$0	$17,409,753

Section 2B / State Prioritized Modernization Projects								$1,554,367	$1,243,494	$310,873
Safe Routes to School								$1,554,367	$1,243,494	$310,873
2025	612002	Merrimack Valley	Lawrence	LAWRENCE- COMMUNITY DAY ARLINGTON IMPROVEMENTS (SRTS)	4	TAP	$1,554,367	$1,554,367	$1,243,494	$310,873
Section 2C / State Prioritized Expansion Projects								$7,938,600	$6,350,880	$1,587,720
Bicycle and Pedestrian								$7,938,600	$6,350,880	$1,587,720
2025	608930	Merrimack Valley	Lawrence	LAWRENCE- LAWRENCE MANCHESTER RAIL CORRIDOR (LMRC) RAIL TRAIL	4	CMAQ	$27,738,600	$7,938,600	$6,350,880	$1,587,720
Section 3B / Non-Federal Aid Funded								$60,162,844	$0	$60,162,844
Bridge On-system Non-NHS								$17,409,753	$0	$17,409,753
2025	612143	Merrimack Valley	Andover	ANDOVER- BRIDGE REPLACEMENT, A-09-015, TEWKSBURY STREET OVER MBTA/BMRR	4	NGBP	$17,409,753	$17,409,753	$0	$17,409,753
Bridge On-system NHS								$42,753,091	$0	$42,753,091
2025	612158	Merrimack Valley	Methuen	METHUEN- BRIDGE REPLACEMENT, M-17-026, ROUTE 213 EB/WB OVER THE METHUEN RAIL TRAIL	4	NGBP	$4,605,891	$4,605,891	$0	$4,605,891
2025	612193	Merrimack Valley	Andover	ANDOVER- BRIDGE PRESERVATION, A-09-022, I-93 OVER MERRIMACK RIVER	4	NGBP	$38,147,200	$38,147,200	$0	$38,147,200

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2026								$108,674,524	$87,573,156	$21,101,368
Section 1A / Regionally Prioritized Projects								$12,716,056	$10,172,845	$2,543,211
Roadway Reconstruction								$12,716,056	$10,172,845	$2,543,211
2026	602843	Merrimack Valley	Georgetown	GEORGETOWN- RECONSTRUCTION ON ROUTE 97 (W. MAIN STREET) FROM MOULTON STREET TO GROVELAND T.L.	4	STBG	$11,179,434	$4,891,456	$3,913,165	$978,291
2026	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	STBG	$45,240,498	$7,824,600	$6,259,680	$1,564,920
Section 1B / Earmark or Discretionary Grant Funded Projects								$3,167,683	$3,167,683	$0
Bridge Off-system Local NB								$3,167,683	$3,167,683	$0
2026	612074	Merrimack Valley	Lawrence	LAWRENCE- BRIDGE REPLACEMENT, L-04-012, SHORT STREET OVER SPICKET RIVER	4	BROFF	$3,167,683	$3,167,683	$3,167,683	$0
Section 2A / State Prioritized Reliability Projects								$78,423,145	$62,738,516	$15,684,629
Bridge On-system NHS								$78,423,145	$62,738,516	$15,684,629
2026	605304	Merrimack Valley	Haverhill	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)	4	NHPP-PEN	$150,000,000	$38,105,819	$30,484,655	$7,621,164
2026	606522	Merrimack Valley	Multiple	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	4	NHPP-PEN	$166,453,746	$16,713,179	$13,370,543	$3,342,636
2026	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP	$300,000,000	$3,730,485	$2,984,388	$746,097
2026	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP-PEN	$300,000,000	$19,873,662	$15,898,930	$3,974,732
Interstate Pavement								$0	$0	$0
2026	612045	Merrimack Valley	Andover	ANDOVER- TEWKSBURY- INTERSTATE MAINTENANCE AND RELATED WORKS ON I-93	4	NHPP-I	$19,211,315	$0	$0	$0

Section 2B / State Prioritized Modernization Projects								$1,812,426	$1,449,941	$362,485
Roadway Reconstruction								$0	$0	$0
2026	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	NHPP	$50,460,556	$0	$0	$0
Safe Routes to School								$1,812,426	$1,449,941	$362,485
2026	612890	Merrimack Valley	Groveland	GROVELAND- IMPROVEMENTS AT DR. ELMER S. BAGNALL ELEMENTARY SCHOOL (SRTS)	4	TAP	$1,812,426	$1,812,426	$1,449,941	$362,485
Section 2C / State Prioritized Expansion Projects								$12,555,214	$10,044,171	$2,511,043
Bicycle and Pedestrian								$12,555,214	$10,044,171	$2,511,043
2026	607542	Merrimack Valley	Multiple	GEORGETOWN- NEWBURY- BORDER TO BOSTON TRAIL (NORTHERN GEORGETOWN TO BYFIELD SECTION)	4	CMAQ	$6,555,214	$6,555,214	$5,244,171	$1,311,043
2026	608930	Merrimack Valley	Lawrence	LAWRENCE- LAWRENCE MANCHESTER RAIL CORRIDOR (LMRC) RAIL TRAIL	4	CMAQ	$27,738,600	$6,000,000	$4,800,000	$1,200,000

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2027								$101,226,746	$82,902,528	$18,324,218
Section 1A / Regionally Prioritized Projects								$15,793,011	$12,634,409	$3,158,602
Roadway Reconstruction								$13,428,691	$10,742,953	$2,685,738
2027	608029	Merrimack Valley	Newburyport	NEWBURYPORT- INTERSECTION IMPROVEMENTS AT ROUTE 1 & MERRIMAC STREET	4	STBG	$2,688,000	$2,688,000	$2,150,400	$537,600
2027	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	STBG	$45,240,498	$10,740,691	$8,592,553	$2,148,138
2027	608788	Merrimack Valley	Haverhill	HAVERHILL- ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	4	STBG	$23,600,997	$0	$0	$0
Bicycle and Pedestrian								$2,364,320	$1,891,456	$472,864
2027	611977	Merrimack Valley	Amesbury	AMESBURY- RIVERWALK CONNECTOR TO THE SALISBURY POINT GHOST TRAIL	4	STBG	$2,364,320	$2,364,320	$1,891,456	$472,864
Section 2A / State Prioritized Reliability Projects								$85,433,735	$70,268,120	$15,165,616
Bridge On-system NHS								$66,222,420	$52,977,936	$13,244,484
2027	605304	Merrimack Valley	Haverhill	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)	4	NHPP-PEN	$150,000,000	$41,900,000	$33,520,000	$8,380,000
2027	606522	Merrimack Valley	Multiple	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	4	NHPP-PEN	$166,453,746	$0	$0	$0
2027	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP	$300,000,000	$6,500,732	$5,200,586	$1,300,146
2027	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP-PEN	$300,000,000	$17,821,688	$14,257,350	$3,564,338
Interstate Pavement								$19,211,315	$17,290,184	$1,921,132
2027	612045	Merrimack Valley	Andover	ANDOVER- TEWKSBURY- INTERSTATE MAINTENANCE AND RELATED WORKS ON I-93	4	NHPP-I	$19,211,315	$19,211,315	$17,290,184	$1,921,132
Section 2B / State Prioritized Modernization Projects								$0	$0	$0
Roadway Reconstruction								$0	$0	$0
2027	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	NHPP	$50,460,556	$0	$0	$0

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2028								$48,160,376	$38,528,301	$9,632,075
Section 1A / Regionally Prioritized Projects								$16,094,046	$12,875,237	$3,218,809
Roadway Reconstruction								$16,094,046	$12,875,237	$3,218,809
2028	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	STBG	$45,240,498	$0	$0	$0
2028	608788	Merrimack Valley	Haverhill	HAVERHILL- ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	4	STBG	$23,600,997	$703,246	$562,597	$140,649
2028	611957	Merrimack Valley	Andover	ANDOVER- RECONSTRUCTION ON ROUTE 133 (LOWELL STREET) FROM SHAWSHEEN ROAD TO ROUTE 28 (NORTH MAIN STREET)	4	STBG	$15,390,800	$15,390,800	$12,312,640	$3,078,160
Section 2A / State Prioritized Reliability Projects								$18,494,181	$14,795,345	$3,698,836
Bridge On-system NHS								$18,494,181	$14,795,345	$3,698,836
2028	605304	Merrimack Valley	Haverhill	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)	4	NHPP-PEN	$150,000,000	$18,494,181	$14,795,345	$3,698,836
2028	606522	Merrimack Valley	Multiple	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	4	NHPP-PEN	$166,453,746	$0	$0	$0
2028	609466	Merrimack Valley	Multiple	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	4	NHPP-PEN	$300,000,000	$0	$0	$0
Section 2B / State Prioritized Modernization Projects								$13,572,149	$10,857,719	$2,714,430
Roadway Reconstruction								$13,572,149	$10,857,719	$2,714,430
2028	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	4	NHPP	$50,460,556	$13,572,149	$10,857,719	$2,714,430

Table 17 - FFY24-28 Transit Funding Program

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 2024							$25,753,675	$18,829,320	$6,904,355	$20,000			
Merrimack Valley Regional Transportation Authority							$25,753,675	$18,829,320	$6,904,355	$20,000			
2024	RTD0010753	Multiple	RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 8 model year 2012 35' buses delivery 2024 8 of 8; added funding for increased cost in FY24.	5307	$4,750,200	$2,480,940	$2,480,940				11.12.02	
2024	RTD0010753	Multiple	RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 8 model year 2012 35' buses delivery 2024 8 of 8; added funding for increased cost in FY24.	RTACAP	$4,750,200	$2,480,940		$2,480,940			11.12.02	
2024	RTD0010754		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	5307	$3,618,265	$3,053,820	$3,053,820				11.7A.00	
2024	RTD0010754		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	SCA	$3,618,265	$763,450		$763,450			11.7A.00	
2024	RTD0010755		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	5307	$1,429,680	$755,100	$755,100				30.09.01	
2024	RTD0010755		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	SCA	$1,429,680	$755,100		$755,100			30.09.01	
2024	RTD0010756		Operating	Merrimack Valley Regional Transit Authority - ADA paratransit service service	5307	$1,963,500	$1,657,600	$1,657,600				30.09.01	
2024	RTD0010756		Operating	Merrimack Valley Regional Transit Authority - ADA paratransit service service	SCA	$1,963,500	$414,400		$414,400			30.09.01	
2024	RTD0010757		Operating	Merrimack Valley MPO Short Range Transit Planning	5307	$100,000	$80,000	$80,000				44.24.00	Local Funding (20 percent match) provided by MVPC
2024	RTD0010757		Operating	Merrimack Valley MPO Short Range Transit Planning	LF	$100,000	$20,000			$20,000		44.24.00	Local Funding (20 percent match) provided by MVPC
2024	RTD0010759		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2018 Supervisory Vehicle	5307	$51,845	$52,000	$52,000				11.42.11	
2024	RTD0010759		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2018 Supervisory Vehicle	RTACAP	$51,845	$13,000		$13,000			11.42.11	
2024	RTD0011302		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING	5307	$65,000	$54,860	$54,860				44.22.00	
2024	RTD0011302		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING	RTACAP	$65,000	$13,715		$13,715			44.22.00	
2024	RTD0011308		RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - ENG/DESIGN - ADMIN/MAINT FACILITY	5307	$1,250,000	$1,055,000	$1,055,000				11.41.03	
2024	RTD0011308		RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - ENG/DESIGN - ADMIN/MAINT FACILITY	RTACAP	$1,250,000	$263,750		$263,750			11.41.03	

2024	RTDFERRY01		Ferry Boat & Facilities	Merrimack Valley Regional Transit Authority - Capital costs for launch of Merrimack River ferryboat service between Haverhill and Newburyport	OF	$4,200,000	$4,200,000	$4,200,000				11.11.33	5307(h)Passenger Ferry Grant Discretionary Program award made to MeVa in July 2022. Will obligate in FY24.
2024	RTDFERRY01		Ferry Boat & Facilities	Merrimack Valley Regional Transit Authority - Capital costs for launch of Merrimack River ferryboat service between Haverhill and Newburyport	TDC	$4,200,000	$840,000		$840,000			11.11.33	5307(h)Passenger Ferry Grant Discretionary Program award made to MeVa in July 2022. Will obligate in FY24.
2024	RTDTBD14		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - 5339 Bus & Bus Facility Discretionary: Expansion of Merrimack Valley Regional Transit Authority Bus Maintenance Facility & Possible New Bus Hub at Bradford CR Station	DRTACAP	$4,800,000	$960,000		$960,000			11.43.02	
2024	RTDTBD14		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - 5339 Bus & Bus Facility Discretionary: Expansion of Merrimack Valley Regional Transit Authority Bus Maintenance Facility & Possible New Bus Hub at Bradford CR Station	OF	$4,800,000	$3,840,000	$3,840,000				11.43.02	
2024	T00113	Multiple	RTA Facility & Vehicle Maintenance	MVRTA- Associated Capital Improvements	5307	$1,000,000	$800,000	$800,000				11.41.03	
2024	T00113	Multiple	RTA Facility & Vehicle Maintenance	MVRTA- Associated Capital Improvements	RTACAP	$1,000,000	$200,000		$200,000			11.41.03	
2024	T00114		RTA Facility & System Modernization	MVRTA- Rehabilitate and Renovate McGovern Transportation Center	5307	$1,000,000	$800,000	$800,000				11.34.01	
2024	T00114		RTA Facility & System Modernization	MVRTA- Rehabilitate and Renovate McGovern Transportation Center	RTACAP	$1,000,000	$200,000		$200,000			11.34.01	

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							$19,071,124	$15,915,357	$3,135,767	$20,000			
Merrimack Valley Regional Transportation Authority							$19,071,124	$15,915,357	$3,135,767	$20,000			
2025	RTD0010760		Operating	Merrimack Valley MPO Short Range Transit Planning	5307	$100,000	$80,000	$80,000				44.24.00	Local Funding (20 percent match) provided by MVPC
2025	RTD0010760		Operating	Merrimack Valley MPO Short Range Transit Planning	LF	$100,000	$20,000			$20,000		44.24.00	Local Funding (20 percent match) provided by MVPC
2025	RTD0010761		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	5307	$3,690,630	$3,115,200	$3,115,200				11.7A.00	
2025	RTD0010761		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	SCA	$3,690,630	$778,800		$778,800			11.7A.00	
2025	RTD0010762		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	5307	$1,458,270	$769,237	$769,237				30.09.01	
2025	RTD0010762		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	SCA	$1,458,270	$769,237		$769,237			30.09.01	
2025	RTD0010763		Operating	Merrimack Valley Regional Transit Authority - ADA Paratransit Service	5307	$2,071,500	$1,657,200	$1,657,200				30.09.01	
2025	RTD0010763		Operating	Merrimack Valley Regional Transit Authority - ADA Paratransit Service	SCA	$2,071,500	$414,300		$414,300			30.09.01	
2025	RTD0010764		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2019 Supervissory Vehicle	5307	$53,400	$54,860	$54,860				11.42.11	
2025	RTD0010764		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2019 Supervissory Vehicle	RTACAP	$53,400	$13,715		$13,715			11.42.11	
2025	RTD0011303		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING	5307	$65,000	$54,860	$54,860				44.22.00	
2025	RTD0011303		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING	RTACAP	$65,000	$13,715		$13,715			44.22.00	

			Modernization	METROPOLITAN PLANNING									
2025	RTD0011309		RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY	DOF	$10,950,000	$8,760,000	$8,760,000				11.43.03	MEVA will be applying for 5339 Bus and Bus Facilities Discretionary Grant Program (DOF). 20% Discretionary RTACAP as match. Estimate to spend $790,000 in FY25 and $1.4M in FY26 for spend down of DRTACAP.
2025	RTD0011309		RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY	DRTACAP	$10,950,000	$790,000		$790,000			11.43.03	MEVA will be applying for 5339 Bus and Bus Facilities Discretionary Grant Program (DOF). 20% Discretionary RTACAP as match. Estimate to spend $790,000 in FY25 and $1.4M in FY26 for spend down of DRTACAP.
2025	RTD0011317		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	5307	$625,000	$500,000	$500,000				11.43.20	
2025	RTD0011317		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	RTACAP	$625,000	$125,000		$125,000			11.43.20	
2025	T00115	Multiple	RTA Vehicle Replacement	MVRTA- Replace (7) Paratransit ADA accessible vehicles with low floor style accessible vehicles.	5307	$1,155,000	$924,000	$924,000				11.11.15	
2025	T00115	Multiple	RTA Vehicle Replacement	MVRTA- Replace (7) Paratransit ADA accessible vehicles with low floor style accessible vehicles.	RTACAP	$1,155,000	$231,000		$231,000			11.11.15	

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							$10,143,820	$6,519,666	$3,604,154	$20,000			
Merrimack Valley Regional Transportation Authority							$10,143,820	$6,519,666	$3,604,154	$20,000			
2026	RTD0010765		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	5307	$3,810,350	$3,215,936	$3,215,936				11.7A.00	
2026	RTD0010765		Operating	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service	SCA	$3,810,350	$803,984		$803,984			11.7A.00	
2026	RTD0010766		Operating	Merrimack Valley Regional Transit Authority - ADA Paratransit Service	5307	$2,185,500	$1,575,415	$1,575,415				30.09.01	
2026	RTD0010766		Operating	Merrimack Valley Regional Transit Authority - ADA Paratransit Service	SCA	$2,185,500	$393,855		$393,855			30.09.01	
2026	RTD0010767		Operating	Merrimack Valley MPO Short Range Transit Planning	5307	$100,000	$80,000	$80,000				44.24.00	Local Funding (20 percent match) provided by MVPC
2026	RTD0010767		Operating	Merrimack Valley MPO Short Range Transit Planning	LF	$100,000	$20,000			$20,000		44.24.00	Local Funding (20 percent match) provided by MVPC
2026	RTD0010768		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	5307	$1,502,020	$792,315	$792,315				30.09.01	
2026	RTD0010768		Operating	Merrimack Valley Regional Transit Authority - Operating Assistance for Service	SCA	$1,502,020	$792,315		$792,315			30.09.01	
2026	RTD0010769		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Yr 2020 Supervisory Vehicle	5307	$55,000	$56,000	$56,000				11.42.11	
2026	RTD0010769		RTA Vehicle Replacement	Merrimack Valley Regional Transit Authority - Replace 1 Model Yr 2020 Supervisory Vehicle	RTACAP	$55,000	$14,000		$14,000			11.42.11	
2026	RTD0011309		RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY	DRTACAP	$10,950,000	$1,400,000		$1,400,000			11.43.03	MEVA will be applying for 5339 Bus and Bus Facilities Discretionary Grant Program (DOF). 20% Discretionary RTACAP as match. Estimate to spend $790,000 in FY25 and $1.4M in FY26 for spend down of DRTACAP.
2026	RTD0011318		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	5307	$1,000,000	$800,000	$800,000				11.43.20	
2026	RTD0011318		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	RTACAP	$1,000,000	$200,000		$200,000			11.43.20	

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							$33,585,700	$27,983,060	$5,602,640				
Merrimack Valley Regional Transportation Authority							$33,585,700	$27,983,060	$5,602,640				
2027	RTD0011311		Operating	Merrimack Valley Regional Transit Authority- OPERATING ASSISTANCE	5307	$1,585,000	$792,500	$792,500				30.09.01	
2027	RTD0011311		Operating	Merrimack Valley Regional Transit Authority- OPERATING ASSISTANCE	SCA	$1,585,000	$792,500		$792,500			30.09.01	
2027	RTD0011312		RTA Facility & Vehicle Maintenance	Merrimack Valley Regional Transit Authority - PREVENTIVE MAINTENANCE	5307	$2,500,000	$2,000,000	$2,000,000				11.7A.00	
2027	RTD0011312		RTA Facility & Vehicle Maintenance	Merrimack Valley Regional Transit Authority - PREVENTIVE MAINTENANCE	RTACAP	$2,500,000	$500,000		$500,000			11.7A.00	
2027	RTD0011313		Operating	Merrimack Valley Regional Transit Authority- Short Term Planning	5307	$120,000	$96,000	$96,000				44.22.00	Short term transportation planning - 20 percent funding match to be provided by MVPC.
2027	RTD0011313		Operating	Merrimack Valley Regional Transit Authority- Short Term Planning	RTACAP	$120,000	$24,000		$24,000			44.22.00	Short term transportation planning - 20 percent funding match to be provided by MVPC.
2027	RTD0011314		Operating	Merrimack Valley Regional Transit Authority - NON FIXED ROUTE ADA PARA SERV	5307	$2,305,700	$1,844,560	$1,844,560				30.09.01	
2027	RTD0011314		Operating	Merrimack Valley Regional Transit Authority - NON FIXED ROUTE ADA PARA SERV	SCA	$2,305,700	$461,140		$461,140			30.09.01	
2027	RTD0011315		RTA Fleet Upgrades	Merrimack Valley Regional Transit Authority - BUY REPLACEMENT 35-FT BUS	DRTACAP	$10,000,000	$2,000,000		$2,000,000			11.12.02	
2027	RTD0011315		RTA Fleet Upgrades	Merrimack Valley Regional Transit Authority - BUY REPLACEMENT 35-FT BUS	OF	$10,000,000	$8,000,000	$8,000,000				11.12.02	
2027	RTD0011316		RTA Fleet Upgrades	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	5307	$5,000,000	$4,000,000	$4,000,000				11.43.20	
2027	RTD0011316		RTA Fleet Upgrades	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	RTACAP	$5,000,000	$1,000,000		$1,000,000			11.43.20	
2027	RTD0011319		RTA Facility & System Modernization	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT	RTACAP	$125,000	$125,000		$125,000			11.33.20	
2027	T00055	Haverhill	RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY Upgrade facilities in preparation for bus electrification.	DOF	$13,950,000	$11,250,000	$11,250,000				11.43.03	MEVA will apply for LoNo Discretionary funds for obligation in FY27. 20% Discretionary RTACAP as match. Estimate to spend $700,000 in FY27 and $2M in FY28 for spend down of DRTACAP.
2027	T00055	Haverhill	RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY Upgrade facilities in preparation for bus electrification.	DRTACAP	$13,950,000	$700,000		$700,000			11.43.03	MEVA will apply for LoNo Discretionary funds for obligation in FY27. 20% Discretionary RTACAP as match. Estimate to spend $700,000 in FY27 and $2M in FY28 for spend down of DRTACAP.

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							$13,395,000	$8,613,500	$4,755,500	$26,000			
Merrimack Valley Regional Transportation Authority							$13,395,000	$8,613,500	$4,755,500	$26,000			
2028	T00055	Haverhill	RTA Replacement Facilities	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY Upgrade facilities in preparation for bus electrification.	DRTACAP	$13,950,000	$2,000,000		$2,000,000			11.43.03	MEVA will apply for LoNo Discretionary funds for obligation in FY27. 20% Discretionary RTACAP as match. Estimate to spend $700,000 in FY27 and $2M in FY28 for spend down of DRTACAP.
2028	T00092	Multiple	Operating	MVRTA-Operating assistance for services	5307	$1,675,000	$837,500	$837,500				30.09.01	
2028	T00092	Multiple	Operating	MVRTA-Operating assistance for services	SCA	$1,675,000	$837,500		$837,500			30.09.01	
2028	T00093	Multiple	Operating	MVRTA- Operating assistance for Non-Fixed Route Paratransit, ADA services	5307	$2,435,000	$1,948,000	$1,948,000				30.09.01	ADA Operating Assistance
2028	T00093	Multiple	Operating	MVRTA- Operating assistance for Non-Fixed Route Paratransit, ADA services	SCA	$2,435,000	$487,000		$487,000			30.09.01	ADA Operating Assistance
2028	T00096	Multiple	RTA Facility & Vehicle Maintenance	MVRTA- Preventative Maintenance	5307	$3,500,000	$2,800,000	$2,800,000				11.44.03	
2028	T00096	Multiple	RTA Facility & Vehicle Maintenance	MVRTA- Preventative Maintenance	SCA	$3,500,000	$700,000		$700,000			11.44.03	
2028	T00097	Multiple	RTA Vehicle Replacement	MVRTA- Replace (2) supervisor vehicles with EV SUV's	5307	$130,000	$104,000	$104,000				11.11.16	
2028	T00097	Multiple	RTA Vehicle Replacement	MVRTA- Replace (2) supervisor vehicles with EV SUV's	RTACAP	$130,000	$26,000		$26,000			11.11.16	
2028	T00098	Multiple	RTA Vehicle Replacement	MVRTA- Replace (20) 2015 Paratransit service EV vans and charging units	5307	$3,525,000	$2,820,000	$2,820,000				11.11.15	EV vans for ADA Service with charging units
2028	T00098	Multiple	RTA Vehicle Replacement	MVRTA- Replace (20) 2015 Paratransit service EV vans and charging units	RTACAP	$3,525,000	$705,000		$705,000			11.11.15	EV vans for ADA Service with charging units
2028	T00116	Multiple	Operating	MVRTA- Merrimack Valley MPO Short Range Planning	5307	$130,000	$104,000	$104,000				44.21.00	Local Funding (20 percent match) provided by MVPC
2028	T00116	Multiple	Operating	MVRTA- Merrimack Valley MPO Short Range Planning	LF	$130,000	$26,000			$26,000		44.21.00	Local Funding (20 percent match) provided by MVPC

Amendment and Adjustment Procedures

The programming schedule detailed in the TIP may be revised by administrative modification or by act of the MVMPO, depending on the type and magnitude of the action. Table 18 and Table 19 detail the definition and classification of various revision actions for both highway and transit projects. Administrative modifications are changes considered minor in nature that do not require MVMPO votes, including minor changes to a project's description. Adjustments require MVMPO approval by vote, but do not require a 21-day comment period and associated public hearings. Example adjustment actions include minor changes to a project's cost or scope, or a change in a project's funding program. Amendments require a public process, including a 21-day comment period and public hearing.

Table 18 - Highway Revision 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.

Table 18 - Highway Revision Procedures Continued

Type of Revision	Definition	Procedure	Notes
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 nonfederal 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	None
Change in Program Year	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 19 - Transit Revision 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 for a new line).	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.

Table 19 - Transit Revision Procedures Continued

Type of Revision	Definition	Procedure	Notes
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 Program Year	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.

Acronym Glossary

Active Transportation Network	ATN
Advance Construction	AC
Americans with Disabilities Act	ADA
Bipartisan Infrastructure Legislation, or Infrastructure Investment and Jobs Act	BIL (also IIJA)
Capital Investment Plan	CIP
Clean Air Act	CAA
Clean Air Act Amendments	CAAA
Congestion Management Process	CMP
Environmental Justice	EJ
Environmental Protection Agency	EPA
Equivalent Property Damage Only	EPDO
Federal Highway Administration	FHWA
Federal Transit Administration	FTA
Fixing America's Surface Transportation Act	FAST ACT
Functionally Obsolete (refers to bridge status)	FO
Green House Gas	GHG
Highway Performance Monitoring System	HPMS
Long-Range Regional Transportation Plans	LRTP
Massachusetts Bay Transportation Authority	MBTA
Massachusetts Department of Environmental Protection	MASSDEP
Massachusetts Department of Transportation	MASSDOT
Merrimack Valley Metropolitan Planning Organization	MVMPO
Merrimack Valley Planning Commission	MVPC
Merrimack Valley Transit (Merrimack Valley Regional Transit Authority)	MeVa (MVRTA)
Metropolitan Area Planning Council	MAPC
Metropolitan Planning Organization; Merrimack Valley Metropolitan Planning Organization	MPO, MVMPO
National Ambient Air Quality Standards	NAAQS
National Highway Freight Network	NHFN
National Highway System	NHS
Northern Middlesex Council of Governments	NMCOG
Nitrogen Oxides	NOx
Priority Development Area	PDA
Public Participation Plan	PPP
Regional Transportation Plan, Metropolitan Transportation Plan	RTP, MTP
Road Safety Audit	RSA
Structurally Deficient (refers to bridge status)	SD
State Transportation Improvement Program	STIP
Surface Transportation Program	STP
Transportation Control Measures	TCM
Transportation Evaluation Criteria	TEC
Transportation Improvement Program	TIP
Unified Planning Work Program	UPWP
Vehicle Miles Traveled	VMT
Volatile Organic Compounds	VOC

Appendices

Air Quality Conformity Determination Merrimack Valley Metropolitan Planning Organization FFY2024-2028

This section documents the latest air quality conformity determination for the 1997 ozone National Ambient Air Quality Standards (NAAQS) in the Merrimack Valley Metropolitan Planning Organization Region. 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 the air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

Legislative and Regulatory Background

The 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 had shown that ozone could affect human health at lower levels, and over longer exposure times than one hour. The new standard was challenged in court, and after a lengthy legal battle, the courts upheld it. 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 15, 2019. This conformity determination continues to be valid for the MVMPO FFY 2024-2028 Transportation Improvement Program, and Massachusetts' FFY 2024-2028 STIP, as each is developed from the conforming 2024-2044 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 MVMPO FFY 2024-2028 Transportation Improvement Program and 2024-2044 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 April 27, 2022. 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, MTP, 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. The MVMPO's Public Participation Plan was last formally amended in March 2017. The Public Participation Plan ensures that the public will have access to the region's TIP and all supporting documentation, provides for public notification of the availability of the TIP and the public's right to review the documents and comment thereon, and provides a 21-day public review and comment period prior to the adoptions of the TIP and related certification documents.

The public comment period for this conformity determination commenced on April 26, 2022. During the 21-day public comment period, any comments received were incorporated into this Plan. This allowed ample opportunity for public comment and MPO review of the draft document. The public comment period will close on May 17, 2022 and subsequently, the MVMPO is expected to endorse this air quality conformity determination on May 24, 2022. These procedures comply with the associated federal requirements.

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 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 MVMPO 2024-2028 Transportation Improvement Program and 2024-2044 Regional Transportation Plan are fiscally constrained, as demonstrated in this document.

GHG Reduction Analysis: Methodology, and Results

The Merrimack Valley MPO worked with our MassDOT partners to complete the Highway and Transit Greenhouse Gas (GHG) Reduction analysis. The MPO collected Functional Design Reports from MassDOT project managers and used data from those reports to complete the GHG analysis for Highway projects using the GHG analysis spreadsheet provided by MassDOT. The results from the analysis were submitted through eSTIP and are depicted in the tables below. For Transit projects, MeVa provided data to MassDOT who completed the analysis.

Table 20: GHG Analysis for Highway Projects 2024-2028

Merrimack Valley					
602202	SALISBURY- RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	27,932	
607541	GEORGETOWN- BOXFORD- BORDER TO BOSTON TRAIL, FROM GEORGETOWN ROAD TO WEST MAIN STREET (ROUTE 97)	Qualitative	Qualitative Decrease in Emissions	0	Shared-use path should increase mode shift from cars to active transportation. No data for GHG analysis yet.
609509	LAWRENCE- INTERSECTION IMPROVEMENTS AT MERRIMACK STREET AND SOUTH BROADWAY (ROUTE 28)	Quantified	Qualitative Decrease in Emissions	1,457,695	
610658	METHUEN- INTERSECTION IMPROVEMENTS AT RIVERSIDE DRIVE AND BURNHAM ROAD	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	1,605,981	
610923	LAWRENCE- INTERSECTION RECONSTRUCTION AT MARSTON STREET & EAST HAVERHILL STREET	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	65,077	
610924	LAWRENCE- ROADWAY RECONSTRUCTION ON AMESBURY STREET	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
S12836	NEWBURYPORT- FEASIBILITY STUDY OF PLUM ISLAND TURNPIKE IMPROVEMENTS	Not Applicable	No assumed impact/negligible impact on emissions	0	
Merrimack Valley			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	3,156,686	
			Total GHG Difference (kg/year)	3,156,686	
2024			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	3,156,686	
			Total GHG Difference (kg/year)	3,156,686	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Merrimack Valley					
612002	LAWRENCE- COMMUNITY DAY ARLINGTON IMPROVEMENTS (SRTS)	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
612143	ANDOVER- BRIDGE REPLACEMENT, A-09-015, TEWKSBURY STREET OVER MBTA/BMRR	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
612158	METHUEN- BRIDGE REPLACEMENT, M-17-026, ROUTE 213 EB/WB OVER THE METHUEN RAIL TRAIL	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
612193	ANDOVER- BRIDGE PRESERVATION, A-09-022, I-93 OVER MERRIMACK RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
Merrimack Valley			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	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Merrimack Valley					
602843	GEORGETOWN- RECONSTRUCTION ON ROUTE 97 (W. MAIN STREET) FROM MOULTON STREET TO GROVELAND T.L.	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	2,399	
606522	ANDOVER- LAWRENCE- BRIDGE REHABILITATION, A-09-036, I-495 OVER ST 28 (SB), A-09-037, I-495 OVER B&M AND MBTA, A-09-041, I-495 OVER ST 28 (NB)	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
607542	GEORGETOWN- NEWBURY- BORDER TO BOSTON TRAIL (NORTHERN GEORGETOWN TO BYFIELD SECTION)	Qualitative	Qualitative Decrease in Emissions	0	Shared-use path should increase mode shift from cars to active transportation. No data for GHG analysis yet.
608930	LAWRENCE- LAWRENCE MANCHESTER RAIL CORRIDOR (LMRC) RAIL TRAIL	Quantified	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	175,927	
612074	LAWRENCE- BRIDGE REPLACEMENT, L-04-012, SHORT STREET OVER SPICKET RIVER	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
612890	GROVELAND- IMPROVEMENTS AT DR. ELMER S. BAGNALL ELEMENTARY SCHOOL (SRTS)		No assumed impact/negligible impact on emissions	0	
Merrimack Valley			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	178,326	
			Total GHG Difference (kg/year)	178,326	
2026			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	178,326	
			Total GHG Difference (kg/year)	178,326	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2027					
Merrimack Valley					
608029	NEWBURYPORT- INTERSECTION IMPROVEMENTS AT ROUTE 1 & MERRIMAC STREET	Qualitative	Qualitative Decrease in Emissions	0	No data for GHG analysis yet.
609466	HAVERHILL- METHUEN- BRIDGE REPLACEMENT, H-12-040=M-17-030, I-495 (NB & SB) OVER MERRIMACK RIVER AND M-17-031, I-495 (NB & SB) OVER ROUTE 110 AND H-12-056, INDUSTRIAL AVENUE (EB & WB) OVER I-495	Qualitative	No assumed impact/negligible impact on emissions	0	No data for GHG analysis yet.
611977	AMESBURY- RIVERWALK CONNECTOR TO THE SALISBURY POINT GHOST TRAIL	Qualitative	Qualitative Decrease in Emissions	0	No data for GHG analysis yet.
612045	ANDOVER- TEWKSBURY- INTERSTATE MAINTENANCE AND RELATED WORKS ON I-93	Not Applicable	No assumed impact/negligible impact on emissions	0	
Merrimack Valley			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	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2028					
Merrimack Valley					
605304	HAVERHILL- BRIDGE REPLACEMENT, H-12-007 & H-12-025, BRIDGE STREET (SR 125) OVER THE MERRIMACK RIVER AND THE ABANDONED B&M RR (PROPOSED BIKEWAY)		No assumed impact/negligible impact on emissions	0	
608095	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN WAVERLY ROAD & WILLOW/MILL STREET	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	7,407,526	
608788	HAVERHILL- ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	Quantified	Quantified Decrease in Emissions from Traffic Operational Improvement	214,372	
611957	ANDOVER- RECONSTRUCTION ON ROUTE 133 (LOWELL STREET) FROM SHAWSHEEN ROAD TO ROUTE 28 (NORTH MAIN STREET)	Qualitative	Qualitative Decrease in Emissions	0	Adding a shared use path should improve mode shift from cars to active transportation. No data for GHG analysis yet.
Merrimack Valley			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	7,621,898	
			Total GHG Difference (kg/year)	7,621,898	
2028			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	7,621,898	
			Total GHG Difference (kg/year)	7,621,898	
2024 - 2028			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	10,956,910	
			Total GHG Difference (kg/year)	10,956,910	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2024					
Merrimack Valley Regional Transportation Authority					
RTD0010753	Merrimack Valley Regional Transit Authority - Replace 8 model year 2012 35' buses delivery 2024 8 of 8; added funding for increased cost in FY24.	Quantified	Qualitative Decrease in Emissions	138,270	
RTD0010754	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service		No assumed impact/negligible impact on emissions	0	
RTD0010755	Merrimack Valley Regional Transit Authority - Operating Assistance for Service		No assumed impact/negligible impact on emissions	0	
RTD0010756	Merrimack Valley Regional Transit Authority - ADA paratransit service service		No assumed impact/negligible impact on emissions	0	
RTD0010757	Merrimack Valley MPO Short Range Transit Planning		No assumed impact/negligible impact on emissions	0	
RTD0010759	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2018 Supervisory Vehicle		No assumed impact/negligible impact on emissions	0	
RTD0011302	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING		No assumed impact/negligible impact on emissions	0	
RTD0011308	Merrimack Valley Regional Transit Authority - ENG/DESIGN - ADMIN/MAINT FACILITY		No assumed impact/negligible impact on emissions	0	
RTDFERRY01	Merrimack Valley Regional Transit Authority - Capital costs for launch of Merrimack River ferryboat service between Haverhill and Newburyport		No assumed impact/negligible impact on emissions	0	
RTDTBD14	Merrimack Valley Regional Transit Authority - 5339 Bus & Bus Facility Discretionary: Expansion of Merrimack Valley Regional Transit Authority Bus Maintenance Facility & Possible New Bus Hub at Bradford CR Station		No assumed impact/negligible impact on emissions	0	
T00113	MVRTA- Associated Capital Improvements		No assumed impact/negligible impact on emissions	0	
T00114	MVRTA- Rehabilitate and Renovate McGovern Transportation Center		No assumed impact/negligible impact on emissions	0	
Merrimack Valley Regional Transportation Authority			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	138,270	
			Total GHG Difference (kg/year)	138,270	
2024			Total GHG Increase (kg/year)	0	
			Total GHG Reduction (kg/year)	138,270	
			Total GHG Difference (kg/year)	138,270	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2025					
Merrimack Valley Regional Transportation Authority					
RTD0010760	Merrimack Valley MPO Short Range Transit Planning		No assumed impact/negligible impact on emissions	0	
RTD0010761	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service		No assumed impact/negligible impact on emissions	0	
RTD0010762	Merrimack Valley Regional Transit Authority - Operating Assistance for Service		No assumed impact/negligible impact on emissions	0	
RTD0010763	Merrimack Valley Regional Transit Authority - ADA Paratransit Service		No assumed impact/negligible impact on emissions	0	
RTD0010764	Merrimack Valley Regional Transit Authority - Replace 1 Model Year 2019 Supervissory Vehicle		No assumed impact/negligible impact on emissions	0	
RTD0011303	Merrimack Valley Regional Transit Authority - METROPOLITAN PLANNING		No assumed impact/negligible impact on emissions	0	
RTD0011309	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY	Not Applicable	No assumed impact/negligible impact on emissions	0	
RTD0011317	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT		No assumed impact/negligible impact on emissions	0	
T00115	MVRTA- Replace (7) Paratransit ADA accessible vehicles with low floor style accessible vehicles.	Quantified	No assumed impact/negligible impact on emissions	-18,073	
Merrimack Valley Regional Transportation Authority			Total GHG Increase (kg/year)	-18,073	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	-18,073	
2025			Total GHG Increase (kg/year)	-18,073	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	-18,073	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2026					
Merrimack Valley Regional Transportation Authority					
RTD0010765	Merrimack Valley Regional Transit Authority - Preventative Maintenance for service		No assumed impact/negligible impact on emissions	0	
RTD0010766	Merrimack Valley Regional Transit Authority - ADA Paratransit Service		No assumed impact/negligible impact on emissions	0	
RTD0010767	Merrimack Valley MPO Short Range Transit Planning		No assumed impact/negligible impact on emissions	0	
RTD0010768	Merrimack Valley Regional Transit Authority - Operating Assistance for Service		No assumed impact/negligible impact on emissions	0	
RTD0010769	Merrimack Valley Regional Transit Authority - Replace 1 Model Yr 2020 Supervisory Vehicle		No assumed impact/negligible impact on emissions	0	
RTD0011309	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY	Not Applicable	No assumed impact/negligible impact on emissions	0	
RTD0011318	Merrimack Valley Regional Transit Authority - CONSTRUCT - MISC EQUIPMENT		No assumed impact/negligible impact on emissions	0	
Merrimack Valley Regional Transportation 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	

MassDot Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG CO2 Impact (kg/yr)	Additional Information
Federal Fiscal Year 2028					
Merrimack Valley Regional Transportation Authority					
T00055	Merrimack Valley Regional Transit Authority - CONSTRUCT ADMIN/MAINT FACILITY Upgrade facilities in preparation for bus electrification.		No assumed impact/negligible impact on emissions	0	
T00092	MVRTA-Operating assistance for services		No assumed impact/negligible impact on emissions	0	
T00093	MVRTA- Operating assistance for Non-Fixed Route Paratransit, ADA services		No assumed impact/negligible impact on emissions	0	
T00096	MVRTA- Preventative Maintenance		No assumed impact/negligible impact on emissions	0	
T00097	MVRTA- Replace (2) supervisor vehicles with EV SUV's		No assumed impact/negligible impact on emissions	0	
T00098	MVRTA- Replace (20) 2015 Paratransit service EV vans and charging units	Quantified	No assumed impact/negligible impact on emissions	-501,954	
T00116	MVRTA- Merrimack Valley MPO Short Range Planning		No assumed impact/negligible impact on emissions	0	
Merrimack Valley Regional Transportation Authority			Total GHG Increase (kg/year)	-501,954	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	-501,954	
2028			Total GHG Increase (kg/year)	-501,954	
			Total GHG Reduction (kg/year)	0	
			Total GHG Difference (kg/year)	-501,954	
2024 - 2028			Total GHG Increase (kg/year)	-771,823	
			Total GHG Reduction (kg/year)	138,270	
			Total GHG Difference (kg/year)	-633,553	

Equity Resources

MassDOT's Regional Environmental Justice Plus Community Methodology

MassDOT's Regional Environmental Justice Plus (REJ+) methodology informed MVMPO staff's equity analysis.

A Regional Environmental Justice "Plus" (REJ+) Community is a designation assigned to block groups with relatively high shares of residents that are especially impacted by changes in 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 metropolitan planning organization-level percentiles rather than statewide percentiles); the designation is called 'plus' because MassDOT has included characteristics beyond traditional 'environmental justice' definitions in order to identify the 'most dominant factor' that defines a community's social vulnerabilities.

To qualify as an REJ+ community, a block group must meet at least one of the following thresholds that correspond to traditional environmental justice criteria.

- Income: Annual median household income ≤ MPO 25th percentile
- Race and 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 limited English-speaking members ≥ MPO 75th percentile

While MassDOT relies on these community characteristics that traditionally define environmental justice communities to establish areas that are particularly vulnerable to social, economic, and political pressures, MassDOT also recognizes that these characteristics do not capture other socioeconomic contexts that indicate areas of high need with respect to transportation issues. Therefore, as MassDOT calculates and identifies the 'most dominant factor' that drive transportation and accessibility needs in each community, it also includes the following characteristics for this specific 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

These three additional characteristics represent the 'plus' elements of MassDOT's analysis. All data used for this analysis was retrieved from the U.S. Census at data.census.gov. The unit of analysis is census block groups (ACS 2021 5-year estimates).

ACS Tables Used

• B19013 – Median Income
• B03002 – Hispanic or Latino, and Not Hispanic or Latino by Race
• C16002 – Household Language by Household Limited English-Speaking Status
• B25044 – Tenure by Vehicles Available
• B01001 – Age
• B22010- Receipt of Food Stamps/SNAP in the Past 12 Months by Disability Status for Households

Median income: For each block group, identify the median household income (001E). Please note that where incomes exceeded $250,000, the Census bureau enters a text value of "250,000+". MassDOT re-coded

these as the numeric value $250,001. The same is true for incomes of less than $2,500, which the Census bureau enters as "2,500-", and we re-coded as $2,499.

Race and ethnicity: For each block group, identify the total number of people who do not identify as White by subtracting the estimated number of people included in the "Not Hispanic or Latino, White Alone" category (003E) from the total number of individuals in the block group (001E). To calculate the percent of individuals who are not white in each block group, divide this number by the total population of the block group (001E).

Limited English proficiency (LEP): For each block group, calculate the percent of households with members of limited English proficiency by adding the number of households with limited English proficiency for each language group (004E, 007E, 010E, 013E) and dividing by the total number of households in each block group (001E).

Car ownership: For each block group, add the number of owner-occupied (003E) and renter occupied (010E) households without access to a vehicle. Divide this total by the total number of households in each block group (001E) to calculate the percent of zero-vehicle households.

Disability: For each block group, add the number of households with 1 or more persons with a disability (003E, 006E) and divide this by the total number of households in each block group (001E) to calculate the percentage of households with individuals with disabilities.

Age: For each block group, add the number of males and females aged 65 and over and divide this total by the block group population (001E) to calculate the percent of seniors.

Thresholds

MassDOT developed unique thresholds for each MPO region to control for the regional differences in socioeconomic and demographic characteristics across the Commonwealth. To calculate the thresholds, MassDOT used the QUARTILE function in Excel to determine each MPO-specific threshold value within each 'environmental justice' or 'plus' category. Block group-level values for each characteristic are then compared to their respective MPO threshold to determine if the block group meets the criteria for REJ+ designation.

The Merrimack Valley's specific regional thresholds are as follow:

- Income: $62,303
- Percent Nonwhite: 45%
- Percent Limited English Proficiency: 7%
- Percent Disabled: 31%
- Percent of Households with No Vehicles: 13%
- Percent Senior: 23%

Most Dominant Factor

For block groups that are identified as REJ+ communities, MassDOT has identified which of the six characteristics is the 'most dominant' 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, provides greater insight into the programs, initiatives, or investments that can be made to promote accessibility and mobility for those who may need extra support.

To calculate the 'most dominant factor', for each characteristic, MassDOT calculated the difference between the value for each block group, and the MPO threshold. MassDOT used an INDEX, MATCH, MAX function in Excel to identify the characteristic that is the most 'different' from the MPO threshold, and thus the 'most dominant factor' value.

Because several block groups across the state do not have income information available (437 total block groups), a modified formula that pulls on just the remaining five characteristics was used in these cases.

Additional Tables and Maps

The table below shows the number of households that speak English less than very well by town.

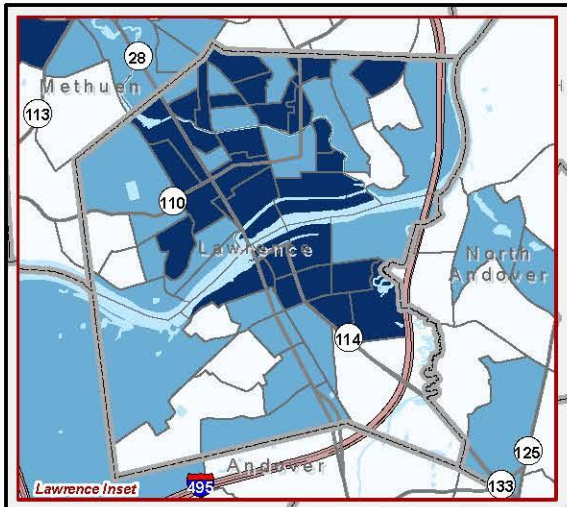
Table 1: Limited English Proficiency People Who Speak English Less Than Very Well By Community

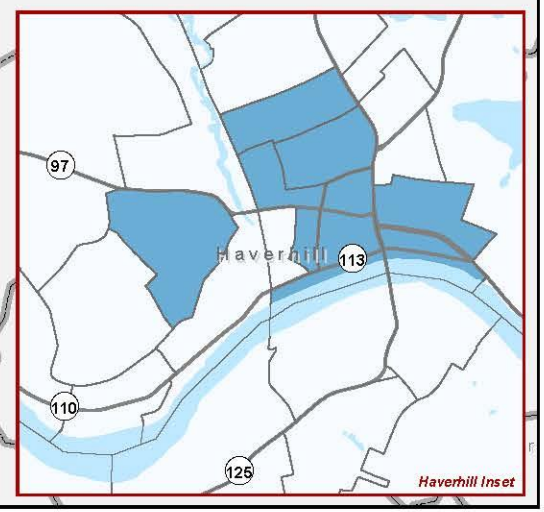
Community	Spanish	French, Haitian, or Cajun	German or other West Germanic languages	Russian, Polish, or other Slavic languages	Other Indo-European languages	Korean	Chinese (incl. Mandarin, Cantonese)	Vietnamese	Other Asian and Pacific Island languages	Arabic	Other and unspecified languages	Total Speaking English Less Than Very Well
Amesbury	194	0	0	0	29	0	46	0	5	43	0	317
Andover	288	15	10	44	368	122	545	88	237	32	0	1,749
Boxford	0	0	18	18	29	0	0	0	0	0	0	65
Georgetown	32	7	0	36	15	0	0	0	0	0	0	90
Groveland	0	0	0	0	12	0	0	0	0	0	0	12
Haverhill	3,203	333	0	49	360	17	20	182	0	0	21	4,185
Lawrence	30,237	7	0	37	189	0	96	435	208	195	0	31,404
Merrimac	17	0	44	0	16	0	0	0	0	0	0	77
Methuen	4,325	733	0	34	399	79	122	356	44	176	142	6,410
Newbury	23	0	10	0	29	0	0	0	0	0	0	62
Newburyport	32	5	14	0	348	0	7	0	0	0	0	406
North Andover	534	68	0	86	406	148	192	34	18	13	11	1,510
Rowley	2	0	0	0	79	0	0	0	0	0	0	81
Salisbury	46	18	9	44	0	0	57	0	0	0	0	174
West Newbury	26	0	0	0	7	0	28	0	0	0	38	99
Total	**38,959**	**1,186**	**105**	**348**	**2,286**	**366**	**1,113**	**1,095**	**512**	**459**	**212**	46,641

Source: American Community Survey 2017-2021, Table C16001

Additional Census maps based on REJ+ thresholds for limited English proficiency and income follow on the next two pages.

MVMPO: FFYs 2024 to 2028
Regional Households that Speak English Less than Very Well





Legend

Percent of Households with Limited English Proficiency

- ≤ 7%
- 7%-30%
- ≥ 30%
- Hydrographic Feature
- Interstate
- Major Road

**Data from ACE 2021 5-Year Estimates.

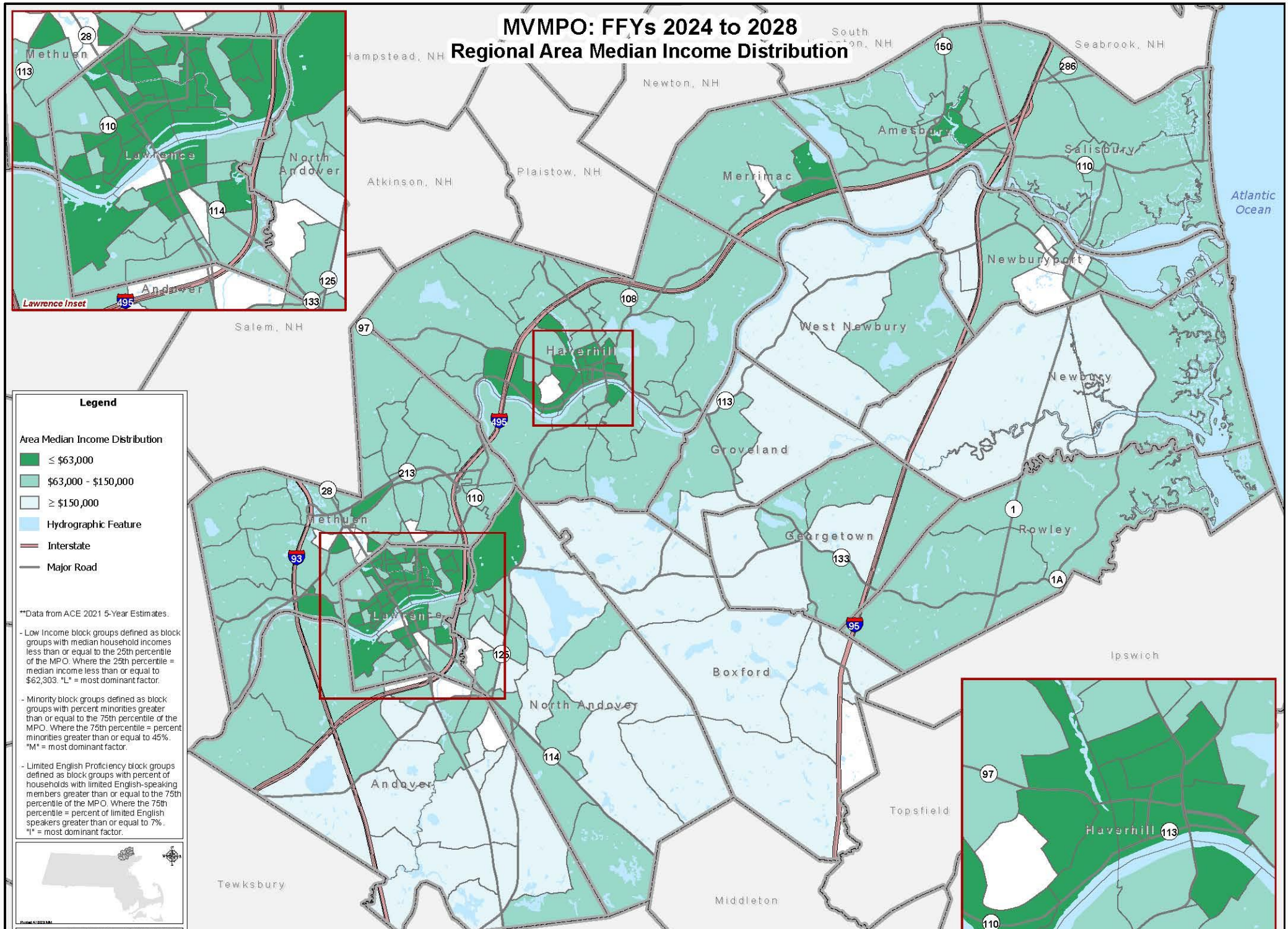
- Low Income block groups defined as block groups with median household incomes less than or equal to the 25th percentile of the MPO. Where the 25th percentile = median income less than or equal to $62,303. "L" = most dominant factor.

- Minority block groups defined as block groups with percent minorities greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent minorities greater than or equal to 45%. "M" = most dominant factor.

- Limited English Proficiency block groups defined as block groups with percent of households with limited English-speaking members greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent of limited English speakers greater than or equal to 7%. "I" = most dominant factor.

1:165,000 1 inch equals 13,750 feet
0 3,437.5 6,875 13,750
Feet

Atlantic Ocean


MVMPO: FFYs 2024 to 2028
Regional Area Median Income Distribution
Lawrence Inset
Legend
Area Median Income Distribution
≤ $63,000
$63,000 - $150,000
≥ $150,000
Hydrographic Feature
Interstate
Major Road
**Data from ACE 2021 5-Year Estimates.
- Low Income block groups defined as block groups with median household incomes less than or equal to the 25th percentile of the MPO. Where the 25th percentile = median income less than or equal to $62,303. "L" = most dominant factor.
- Minority block groups defined as block groups with percent minorities greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent minorities greater than or equal to 45%. "M" = most dominant factor.
- Limited English Proficiency block groups defined as block groups with percent of households with limited English-speaking members greater than or equal to the 75th percentile of the MPO. Where the 75th percentile = percent of limited English speakers greater than or equal to 7%. "I" = most dominant factor.
Methuen
Lawrence
North Andover
Andover
Salem, NH
Hampstead, NH
Atkinson, NH
Plaistow, NH
Newton, NH
South Hampton, NH
Seabrook, NH
Amesbury
Merrimac
Salisbury
Newburyport
Atlantic Ocean
West Newbury
Haverhill
Groveland
Newbury
Georgetown
Rowley
Ipswich
Boxford
Topsfield
Middleton
Tewksbury

TEC Scoring

For the past 20 years MVPC has been using Transportation Evaluation Criteria (TEC) to score regional transportation projects across six different planning criteria. A project's final score represents the sum of the point values for each criterion. The point values for each criterion represent an average of the points scored across several sub-criterion. The single score for each of these considerations represents an average of several sub-considerations. The table below shows the points that may be achieved for each sub-criterion. The highest conceivable score a project could receive would be an 17.75 (note that for the last criterion, Environmental Effects, the highest average point total that may be achieved is 2.75 because the air quality impacts sub-criterion's maximum achievable score is only 2).

Criteria	Sub-criteria	Possible Points
1. Condition	A. Magnitude of Pavement Impact	0-3
	B. Magnitude of Other Infrastructure Impacts	0-3
2. Mobility	A. Effect on Congestion	-3-3
	B. Effect on Travel Time Improvement	0-3
	C. Effect on Non-Auto Modes	0-3
	D. Effect on Local and Regional Traffic	0-3[1]
3. Safety and Security	A. Effect on Crash Rate Compared to State Average	0-3
	B. Effect on Bicycle and Pedestrian Safety	0-3
	C. Effect on Transportation Security/Evacuation	0-3
4. Community Effects and Support	A. Residential Impacts	-3-3
	B. Public Support	-1-3
	C. Service Impact to Title VI/EJ Communities	-3-3
	D. Other Impacts to Title VI/EJ Communities	-3-3
	E. Housing Stock Impact	-3-3
5. Land Use and Economic Development	A. Business Impacts	-3-3
	B. Consistency w/ Regional Sustainable Development Goals[2]	-3-3
	C. Consistency with Regional Land Use Goals[2]	-3-3
	D. Potential for Job Creation	-3-3
6. Environmental Effects	A. Air Quality Impacts	-1-2
	B. Water Quality Impacts	-3-3
	C. Historic Resource/Cultural Impacts	-3-3
	D. Effect on Wildlife	-3-3

[1]Negative scores may be applied per staff discretion

[2]Based on goals described in MVPC's Priority Growth Strategy

Historically, staff have worked with MassDOT highway staff to assign point values to each sub-criterion. This process utilizes a degree of high-level discretion. As such, staff anticipate developing a new scoring methodology for future TIP cycles. The scores included herein are legacy scores determined by the methodology described above.

The following table provides the TEC score for every project in the MVMPO's Current Universe of Potential Regional Target Projects.

Project Title	Community	Project Number	Score
Amesbury Riverwalk Connector to the Salisbury Point Ghost Trail	Amesbury	611977	6.85
Andover Rt 133 (from Shawsheen Road to Route 28)	Andover	611957	12.03
Boxford 133	Boxford	606721	5.65
Boxford Section of Border to Boston Trail	Boxford	607540	4.35
Georgetown B to B Square north to Byfield	Georgetown/ Newbury	607542	6.82
Georgetown Southern B to B	Georgetown	607541	7.20
Georgetown Rt 97	Georgetown	602843	9.03
Haverhill Corridor Improvement on Water Street from Mill to Riverside	Haverhill	608721	10.10
Haverhill Reconstruction of North Avenue from Main Street to NH	Haverhill	608788	8.58
Lawrence Amesbury Street Reconstruction	Lawrence	610924	11.15
Lawrence Intersection Improvements at Merrimack Street and Rt 28	Lawrence	609509	13.00
Lawrence Marston at East Haverhill Reconstruction	Lawrence	610923	10.13
Lawrence N. And. Rt 114 (495 to 125)	Lawrence/ N. Andover	610658	13.30
Methuen Riverside at Burnham	Methuen	610658	7.87
Newburyport Route 1 @ Merrimac St.	Newburyport	608029	8.37
North Andover Rt 114 from Rt 125 to I-495	North Andover	608095	9.97
Rowley Safety Improvements at Route 1, Central and Glen Streets	Rowley	609392	6.50
Salisbury 1	Salisbury	602202	11.72
Salisbury Route 1A Reconstruction	Salisbury	607710	7.98
Haverhill- Two Culvert Replacements on Rt 110	Haverhill	613092	TBD[1]

[1]As this project is not programmed, staff will apply the new scoring system in a future TIP cycle.

The following detailed tables provide information on the legacy scoring system employed for this TIP cycle, which will be replaced in the next cycle.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Condition				
A. Magnitude of pavement condition improvements	Use Pavement Condition Index (PCI) (if available) to rate current condition as excellent, good, fair, or poor. If not available, use pavement condition description from other sources.	Poor = 3 to 2 Fair = 2 to 1 Good = 1 to 2 Excellent = 0 to 1	Pavement conditions often vary across the project limits, and therefore scores have a range. Excellent current condition may score a 1 if project is not expected to be programmed for several years.	Preservation; Safety; Resiliency & reliability; Economic Vitality. Contributes to meeting Pavement Performance Measure Targets of 70% Interstate or 30% Non-Interstate NHS Pavements in Good Condition and/or 4% max. Interstate or 30% max. Non-Interstate Pavements in Poor Condition Statewide
B. Magnitude of improvement of other infrastructure	Types and number of upgrades	Major Upgrade such as widening a bridge = 3 Multiple upgrades from list of drainage improvements, new sidewalks, new signals, signal upgrades, adding turn lanes, etc. = 3 to 2 One or two of above upgrades = 2 to 1 No Upgrades = 0		Preservation; Safety; Resiliency & reliability; Accessibility & mobility; Environmental and economic sustainability; Enhance travel & tourism; Note that all roadway projects consider drainage improvements.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Mobility				
A. Effect on magnitude and duration of congestion	Magnitude of current congestion, measured by Level of Service, traffic delays, or queue lengths, if available. If there is not currently congestion, then score is zero unless project causes congestion.	Significant reduction in congestion = 3 Moderate reduction in congestion = 2 Small reduction in congestion = 1 No change in congestion = 0 Small increase in congestion = -1 Moderate increase in congestion = -2 Significant increase in congestion = -3	If there is not currently congestion, then score is zero unless project causes new congestion.	Economic Vitality; Accessibility and Mobility; Resiliency and reliability; Enhance travel and tourism. Contributes to meeting System Performance Measure Targets of 68% Interstate or 80% Non-Interstate NHS person-miles travelled that are reliable Statewide and/or 1.85 Truck Travel Time Reliability Index Statewide
B. Effect on travel time and connectivity / access	Types and numbers of upgrades, such as, improves travel time by widening shoulders, or signal improvements; provides new access, connects existing trails, etc.	Major Upgrade such as providing new roadway access = 3 Multiple upgrades from signal improvements, new sidewalks, adding turn lanes, new trail = 3 to 2 One or two of above upgrades, or new = 2 to 1 No Upgrades = 0	Additional point (not above 3) if providing connectivity between schools, businesses, and other activity centers.	Economic Vitality; Accessibility and Mobility; Resiliency and reliability; Connectivity; Enhance travel and tourism.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Mobility				
C. Effect on other modes using the facility	Types and numbers of upgrades to Other modes (means of travel)	Major Upgrade for Other mode of transportation = 3 Multiple upgrades from adding bike lanes, new sidewalks, wheelchair ramps, proximity to transit facilities = 3 to 2 One or two of above upgrades = 2 to 1 No Upgrades to Other modes = 0		Economic Vitality; Safety; Security; Accessibility and Mobility; Environmental and economic sustainability; Connectivity; Resiliency and reliability; Enhance travel and tourism. Contributes to meeting System Performance Measure Target of 34.5% Non-SOV travel on the NHS in the UZA
D. Effect on regional and local traffic	Whether affects traffic outside of the project limits locally, and beyond that, regionally	Is on the NHS, a State numbered route, connector, or highly traveled local road; and: Substantially improves traffic regionally = 3 Moderately improves traffic regionally = 2 to 1 Substantially or moderately improves traffic locally = 2 to 1 Neutral = 0 Negative scores if adversely affects traffic to the degrees and geography above.		Economic Vitality; Accessibility and Mobility; Efficient System Management; Enhance travel and tourism.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Safety and Security				
A. Effect on crash rate compared to State average	Whether location is designated a State defined Crash Cluster location (HSIP eligible) and the EPDO score assigned by that performance measure, or crash rate compared to State average, other safety concerns	High EPDO score, crash cluster, Top 100 crash locations = 3 Higher than average crash rate/ EPDO score = 2 Lower than average crash rate, but safety concerns are being addressed = 1 No effect on crash rate = 0		Safety; Efficient System Management; Resiliency and Reliability. Contributes to meeting HSIP and Safety Performance Measure Targets for number of fatalities and serious injuries, rates of fatality and serious injury Statewide on all public roads.
B. Effect on bicycle and pedestrian safety	Includes improvements that effect bicycle and pedestrian safety or is detrimental to pedestrian bicycle safety.	Major Upgrade, separate bike lane, or shared use path = 3 Multiple upgrades from list of: widening shoulders for bikes; new or improved sidewalks; new pedestrian signals; wheelchair ramps; etc. = 3 to 2 One or two of above upgrades = 2 to 1 No Upgrades = 0 Could use negative scores if detrimental to bike / pedestrian safety	Additional point (not above 3) if improvements are near schools or other areas frequented by bicyclists and/ or pedestrians, or there is a history of crashes involving bikes and/or pedestrians.	Safety; Resiliency and Reliability; Enhance Travel and Tourism. Contributes to meeting HSIP and Safety Performance Measure Targets for Number of non-motorized fatalities and serious injuries Statewide on all public roads.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Safety and Security (Cont.)				
C. Effect on transportation security and evacuation	Is on the NHS. Is a community designated evacuation route. Is within 10 miles of a nuclear power plant.	Will significantly improve travel along an evacuation route = 3 Is an evacuation route within 10 miles of a nuclear power plant, or is on the NHS and improves travel = 2 Is an evacuation route or Is within 10 miles of a nuclear power plant, or is on the NHS = 1 Is not any of the 3 listed in the data column = 0		Security; Safety.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Community Effects and Support				
A. Residential effects: ROW, noise, aesthetic, cut through traffic, and other.	Degree of effect on residential aspects.	Improves these aspects: Significantly = 3 Moderately = 2 Slightly = 1 No effect on these aspects = 0 Creates negative effects from these aspects: Slightly = -1 Moderately = -2 Significantly = -3		Environmental Sustainability;
B. Public, local government, legislative, and regional support	Degree of support.	Improves these aspects: Greatly Supported = 3 Moderately Supported = 2 Somewhat Supported = 1 Not Supported, or unknown = 0 Some Opposition = -1		
C. Effect on service to minority or low-income neighborhoods. (Title VI and EJ)	Increased or decreased service to Title VI and EJ neighborhoods	Improves service to Title VI or EJ neighborhoods: Significantly = 3 Moderately = 2 Slightly = 1 No effect on Title VI or EJ neighborhood = 0 Slightly decreased service = - 1 Moderately decreased service = - 2 Significantly decreased service = - 3		Quality of Life; Accessibility and Mobility; Resiliency and Reliability; Enhance Travel and Tourism.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Community Effects and Support (Cont.)				
D. Other impacts / benefits to minority or low-income neighborhoods. (Title VI and EJ)	Number / degree of positive or negative impacts to Title VI and EJ neighborhoods	Positive Impacts to Title VI or EJ neighborhoods: Significant = 3 Moderate = 2 Slight = 1 No effect on Title VI or EJ neighborhood = 0 Negative Impacts to Title VI or EJ neighborhoods: Slight = - 1 Moderate = - 2 Significant = - 3		Quality of Life.
E. Effect on development and redevelopment of housing stock	Number / degree of positive or negative effects on development and redevelopment of housing stock	Positive Impacts to development / redevelopment of housing stock: Significant = 3 Moderate = 2 Slight = 1 No effect on development or redevelopment of housing stock = 0 Negative Impacts to development / redevelopment of housing stock: Slight = - 1 Moderate = - 2 Significant = - 3		Economic Vitality; Quality of Life.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Land Use and Economic Development				
A. Business effects: ROW, noise, traffic, parking, freight access and other.	Degree of effect on business aspects.	Improves these aspects: Significantly = 3 Moderately = 2 Slightly = 1 No effect on these aspects = 0 Creates negative effects from these aspects: Slightly = -1 Moderately = -2 Significantly = -3		Economic Vitality; Accessibility and Mobility.
B. Sustainable development effects. Consistent with Merrimack Valley Priority Growth Strategy (MVPGS).	Number / degree of positive or negative effects on sustainable development and proximity to State and/or Regional Priority Development Areas (PDA)	Positive Impacts to sustainable development: Significant = 3 Moderate = 2 Slight = 1 No effect on development or redevelopment of housing stock = 0 Negative Impacts to development / redevelopment of housing stock: Slight = - 1 Moderate = - 2 Significant = - 3	Additional points, (not above 3) if located in or near a State or Regional Priority Development Area	Economic Vitality; Consistency with State and local planned growth.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Land Use and Economic Development (Cont.)				
C. Consistent with regional land-use and economic development plans and Merrimack Valley Priority Growth Strategy (MVPGS).	Degree of consistency with regional plans	Consistent with regional plans: Significantly = 3 Moderately = 2 Slightly = 1 Neutral = 0 Not Consistent with regional Plans: Slightly = - 1 Moderately = - 2 Significantly = - 3	Additional points (not above 3) if located in or near a Regional Priority Development Area	Economic Vitality; Consistency with State and local planned growth and economic development plans.
D. Effect on job creation.	Estimated job creation	Effect on job creation: Significant = 3 Moderate = 2 Slight = 1 Neutral = 0 Elimination of jobs: Slight = - 1 Moderate = - 2 Significant = - 3		Economic Vitality.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Environmental Effects				
A. Air Quality / Climate effects	Green House Gas Analysis Results	Effect on Air Quality: Quantified decrease in emissions = 2 or 1 Qualitative decrease in emissions = 1 No effect on emissions = 0 Qualitative increase in emissions = -1 Quantified increase in emissions = - 2 or -1 Climate Effects Resiliency: A culvert is being widened = 1 A facility (ex. bridge, road or trail) in a flood prone area is being raised = 1		Protect and Enhance the Environment. Preservation; Resiliency & reliability; Reduce or mitigate stormwater impacts; Contributes to meeting CMAQ Performance Measure Target of 18.3 Annual Hours of Peak Hour Excessive Delay (PHED) per Capita in the UZA
B. Water Quality / supply effects; wetlands effects.	Number / degree of positive or negative effects on water quality / supply effects; wetlands effects.	Effect on Water Quality / supply and wetlands: Positive effect: Significant = 3 Moderate = 2 Slight = 1 Neutral = 0 Negative Effect: Slight = - 1 Moderate = - 2 Significant = - 3		Protect and Enhance the Environment; Reduce or mitigate stormwater impacts.

TEC Element	Data	Scoring	Additional Notes	Planning Factors/ Performance Measures
Environmental Effects (Cont.)				
C. Historic and cultural resource effects	Proximity / degree of positive or negative effects on historic and cultural resources	Positive effect on historic and cultural resources: Significant = 3 Moderate = 2 Slight = 1 Neutral = 0 Negative Effect: Slight = - 1 Moderate = - 2 Significant = - 3	Often considers improved access to nearby resources.	Economic Vitality; Accessibility and Mobility; Quality of Life; Enhance Travel and Tourism.
D. Effect on wildlife habitat and endangered species.	Location of project in State Estimated Habitat of Rare Wildlife or State Priority Habitat of Rare Species	Positive effect on wildlife or endangered species in a State designated area: Significant = 3 Moderate = 2 Slight = 1 Not in a wildlife or endangered species area = 0 Negative effect on wildlife or endanger species in a State designated area.: Slight = - 1 Moderate = - 2 Significant = - 3		Protect and Enhance the Environment.

Public Comments Received

1. 5/17/2023 – Public Hearing – 1pm – Dominic Privitera – Metheun – Mr. Privitera asked about the status of MassDOT Project ID #609471 "METHUEN ADA RETROFITS AT VARIOUS LOCATIONS" and asked if there would be any work on Pleasant Valley Street. MassDOT provided Mr. Privitera the project extent and noted that no work is proposed on Pleasant Valley Street as the roadway is city-owned.

2. MassDOT provided its standard TIP comment response forms to MVMPO staff, which follows on the next page.

massDOT
Massachusetts Department of Transportation

MPO Liaison MVMPO TIP Review Checklist

Completeness

ID			Review Item	Comments	Reference
A1	✓	*	Table of Contents is accurate and internally-linked.	Please make sure to update after any additional content/comment is incorporated into final document.	✓ – has use in column B
A2	✓	*	Document has no broken links.		X – has use in column B
A3	✓	*	MPO self certification statement is included.		
A4	✓	*	GHG certification is included.		
A5	✓	*	Air Quality Conformity statement is included.		
A6		*	Document has no text or image placeholders.	Please include GHG Reduction Analysis beginning on p. 69.	
A7		*	Charts, tables, and maps are legible and properly annotated.	It appears one or both maps on p. 22-23 may be intended for a gap on p.20. Please address. Also, please consider including all mappable FFY24-28 TIP Investments in Figure 3 (including Statewide Highway Program and site-specific Transit Projects) There are multiple charts and tables in the Performance Measures section that are not labeled consistently with rest of TIP.	
A8	✓	*	Document passes an accessible check.		
A9	✓	*	Document is available in relevant languages per the MPO's Title VI Plan.		
A10	✓	*	List of MPO members is current.		
A11	✓	*	Signatory sheet is included and accurate. Update Gina Fiandaca as Secretary/CEO of MassDOT.		
A12		*	Acronyms and partner agency lists are up to date.	Please add MVRTA as an acronym or make a note under MeVa that references to MVRTA and MeVa are synonymous. Please do a final readthrough of acronym Glossary (p.63) for accuracy.	
A13	✓	*	Dates listed w/in TIP reflect FFY 2024–2028.		

Narrative

ID			Review Item	Comments	Reference
B1	✓	*	TIP outlines MPO institutional organization.		
B2	✓	*	TIP links back to national planning factors.		
B3	✓	*	TIP references the RTP and the UPWP.		
B4	✓	*	TIP narrative is concise and reader-friendly.		
B5	✓	*	TIP discusses evaluation scoring.		
B6	✓	*	TIP includes project scoring table.		
B7	✓	*	TIP describes public participation process.		
B8	✓	*	TIP includes procedures for adjustments and amendments, including any deviations from MassDOT guidelines.		
B9	✓	*	TIP describes funding sources accurately.	MassDOT created a standalone appendix in FFY 2023 providing greater detail and reference information for STIP funding sources (second link in reference). Please consider referencing this in your Federal Aid Programs section (p.32) or cross-referencing the content of Tables 10 and 11.	https://www.fhwa.dot.gov/specialfunding/ https://www.mass.gov/doc/stip-ffy-2023-2027-appendix-funding-category/download

Performance Measurement

ID			Review Item	Comments	Reference
C1	✓	*	TIP includes discussion of target-setting process.		
C2	✓	*	TIP references relevant Transit Asset Management (TAM) Plans and includes all TAM Plan targets.		https://www.transit.dot.gov/TAM/TAMPlans
C3	✓	*	TIP references relevant Public Transportation Agency Safety Plans (PTASPs) and includes all PTASP targets		https://www.transit.dot.gov/PTASP
C4	✓	*	TIP includes current adopted performance targets.		PM1, PM2, PM3, TAM, and any regionally-derived targets
C5		*	TIP discusses relationship between performance targets and project selection.	Please coordinate with MeVa for further narrative discussing relationship between TAM Plan and PTASP and proposed FY 24-28 TIP project selection.	
C6			Discussion on performance measures compares regional data to statewide data where available.	Please include regional data for performance measures where available (*I believe there was regional data presented to MVMPO at time of endorsement, but it is missing from TIP... there's a reference to 'Figure X' that I can't find)	

Project Listing

ID			Review Item	Comments	Reference

D1		*	Financial projections align with MassDOT guidance.	Please edit Table 13 to show "Anticipated Apportionment", "Match", "Total Funds Available", "Programmed Funding Totals", and "Unprogrammed Funds" per year... ultimately similar to Table 12.	
D2		*	TIP template is formatted correctly.	Please either replace Tables 14 and 16 with a MVMPO 'STIP Investments Report' for FFY 24-28 Highway Projects with Additional Information exported from eSTIP, or reformat Tables 14 and 16 to include all project information as captured in STIP Investments Report.	
D3		*	Projects use MassDOT ProjectInfo TFPCs.	Related to previous comment, please export latest STIP Investments Report for most current TFPC detail and programming detail (particularly to capture minor changes to funding amounts/categories affecting Statewide Highway Program due to fiscal constraint).	
D4	✓	*	Out year expenditures have the appropriate inflation assumptions.		2025: 4%; 2026: 8%; 2027: 12%; 2028: 16%
D5	✓	*	Projects use MassDOT ProjectInfo description.		
D6		*	Additional comment field contains all necessary info.	Please coordinate with MeVa to indicate whether any TIP projects are discretionary or illustrative, and to include this information in the "Additional Information" field in eSTIP so it exports to the Transit STIP Investments Report (Table 15).	Total cost, AC, Year-of-expenditure, TEC scores
D7		*	MassDOT projects are (accurately) included into regional template.	Please see previous comments on using STIP Investments Report to show all programmed projects, including regionally prioritized and Statewide Prioritized projects in the Merrimack Valley MPO region.	
D8	✓	*	Regional target projects adhere to Readiness Days feedback.		
D9	✓	*	List includes all projects, including FLAP, FLTP, and Tribal projects.		
D10		*	Transit TIP is formatted properly.	Please coordinate with MeVa on providing Other Information for all projects with LF (Local Funds), OF (Other Federal), and/or DRTACAP (Discretionary State Bond Match). Specifically, please identify who is providing the local match for projects with LF, details on the OF source (discretionary award status? earmark?), and what the match percent split is for these projects.	Should be unchanged from Transit eSTIP
Impact Analysis					
ID			Review Item	Comments	Reference
E1	✓	*	TIP includes GHG certification.		
E2		*	GHG analysis is available for all (and only) funded projects.	Please include GHG Analysis in final report. This can be exported from eSTIP for Highway and Transit projects.	
E3		*	All projects are appropriately labeled as qualitative or quantitative.	[missing]	
E4		*	Transit projects have been analyzed for GHG.	Please coordinate with MeVa on analysis of GHG for transit projects for final document.	
E5	✓	*	Past and current TIP projects have been analyzed for geographic equity, including a relevant table of programming by municipality.		
E6	✓	*	Past and current TIP projects have been analyzed for social equity.		
E7	✓	*	Social equity analysis considers Title VI / language access.		
E8	✓	*	Social equity analysis considers EJ populations, including both federal and state definitions.		
E9	✓	*	Equity analysis includes a narrative to accompany any figures.		

* *Indicates required by state or federal regulation.*