

Merrimack Valley Metropolitan Planning Organization

Federal Fiscal Years 2019 to 2023

Transportation Improvement Program

As Amended through May 2019



Final Report

Prepared by the Merrimack Valley Planning Commission

This document was prepared in cooperation with the Massachusetts Department of Transportation and the U.S. Department of Transportation. (under Contracts #95416, #MA-80-011 and #MA-80-012 with MassDOT) The views and opinions of the Merrimack Valley Planning Commission expressed herein do not necessarily state or reflect those of the Massachusetts Department of Transportation or the U.S. Department of Transportation.

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Endorsement Page for Federal TIP - Signatures



Merrimack Valley Metropolitan Planning Organization Endorsement of the FFYs 2019-2023 Transportation Improvement Program Amendment # 5

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 2019-2023 TIP Amendment # 5 is financially constrained and that the implementation of the Merrimack Valley Metropolitan Planning Organization 2016 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 2019-2023 Transportation Improvement Program Amendment # 5.

Signatory Certification:

Date: May 22, 2019

Stephanie Pollack
Secretary/
CEO MassDOT

Joseph Costanzo
Administrator/CEO
MVRTA

James Fiorentini
Mayor of Haverhill

Jonathan L. Gulliver
MassDOT Highway
Division Administrator

Paul Materazzo
Town of Andover

Daniel Rivera
Mayor of Lawrence

John Cashell
Town of Georgetown

Neil Harrington
Town of Salisbury

Robert Snow
Town of Rowley

Karen Conard
MVPC Director

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**Self Certification Compliance
Statement - Signatures
Merrimack Valley Metropolitan
Planning Organization**

Concurrent with the submittal of the proposed TIP to the FHWA and the FTA, the MPO Policy Board shall certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 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 USDOT funded projects;
6. 23 CFR 230, regarding the implementation of an Equal Employment Opportunity Program on Federal and Federal-aid Highway construction contracts;
7. The provisions of the American with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender;
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 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, a Member of Congress, in connection with the awarding of any Federal contract.

Signatory Certification:

Date: May 23, 2018

Stephanie Pollack
Secretary/
CEO MassDOT

Joseph Costanzo
Administrator/CEO
MVRTA

James Fiorentini
Mayor of Haverhill

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310 CMR 60.05: Global Warming Solutions Act – Signatures

310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation

Self – Certification Compliance Statement for Metropolitan Planning Organizations

This will certify that the FFYs 2019-2023 Transportation Improvement Program for the Merrimack Valley Metropolitan Planning Organization is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation. The regulation requires the Metropolitan Planning Organizations (MPOs) to:

1. 310 CMR 60.05, 3(b)(1)(a): Evaluate and track the GHG emissions and impacts of RTPs and TIPs;
2. 310 CMR 60.05, 3(b)(1)(b): In consultation with MassDOT, develop and utilize procedures to prioritize and select projects in RTPs, TIPs, and STIPs based on factors that include GHG emissions and impacts;
3. 310 CMR 60.05, 3(b)(1)(c): Quantify net GHG emissions and impacts resulting from projects in RTPs and TIPs and have made efforts to minimize GHG emissions and impacts;
4. 310 CMR 60.05, 3(b)(1)(d): Determine in consultation with MassDOT that the appropriate planning assumptions used for 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, 4(a)(2)(e): Develop public consultation procedures for GHG reporting and related GWSA requirements consistent with current and approved regional public participation plans;
6. 310 CMR 60.05, 4(c): Prior to making final endorsements on the RTPs, TIPs, STIPs, and projects included in these plans, MassDOT and the MPOs shall include the GHG Assessment and information on related GWSA activities in RTPs and TIPs and provide an opportunity for public review and comment on the RTPs, and TIPs.
7. 310 CMR 60.05, 6(a): After a final GHG assessment has been made by MassDOT and the MPOs, MassDOT and the MPOs shall submit MPO-endorsed RTPs and TIPs within 30 days of endorsement to the Department for review of the GHG assessment.

Signatory Certification:

Date: May 23, 2018

Stephanie Pollack
Secretary/CEO MassDOT

Joseph Costanzo
Administrator/CEO
MVRTA Advisory Board

James Fiorentini
Mayor of Haverhill

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Town of Rowley

Karen Conard
MVPC Director

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Merrimack Valley Metropolitan Planning Organization FFYs 2019-2023 Transportation Improvement Program as Amended through May 2019 Final Report

Part A. Introduction

Part A. 1. TIP Development Process

Federal transportation authorization legislation establishes funding categories for transportation projects that may be eligible for Federal funding and sets maximum funding levels per category for each year of the legislation. Projects in this TIP are planned to be primarily funded through the federal transportation act titled “Fixing America’s Surface Transportation Act (FAST Act)” that was signed into law December 4, 2015. The FAST Act funds \$305 billion dollars for transportation for Federal Fiscal Years (FFYs) 2016 through 2020.

The previous legislation “Moving Ahead for Progress in the 21st Century (MAP-21)” established planning factors known as the “MAP-21 eight planning factors”. The FAST Act adds two new planning factors (numbers 9 and 10 in the list that follows), the FAST Act stipulates that the metropolitan planning process...

“provide for consideration of projects and strategies that will-

- A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- B) increase the safety of the transportation system for motorized and non-motorized users;
- C) increase the security of the transportation system for motorized and non-motorized users;
- D) increase the accessibility and mobility of people and for freight;
- E) protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

- G) promote efficient system management and operation;
- H) emphasize the preservation of the existing transportation system;
- I) improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- J) enhance travel and tourism.”

It is the responsibility of the Federal mandated, State designated, regional Metropolitan Planning Organizations (MPOs) to carry out the Federal transportation planning process in their respective urbanized areas and prepare many Federal transportation documents, including the Transportation Improvement Program (TIP). This process, and the MPOs themselves, were established with the intention to include local and regional input into the Federal transportation planning process.

Based on Federal regulations any transportation project funded through the Federal Highway Administration (FHWA), or the Federal Transit Administration (FTA) must be listed in the appropriate region's Transportation Improvement Program (TIP). MassDOT combines the 13 regional MPO TIPs with statewide projects to produce the Statewide TIP (STIP) from which Federal-aid highway and transit projects are chosen. Without such a listing, Federal Highway funds cannot be expended by the Massachusetts Department of Transportation (MassDOT) on local or State projects. Similarly, the Merrimack Valley Regional Transit Authority (MVRTA) can only receive federal funds for projects listed in the TIP and STIP.

Merrimack Valley Metropolitan Planning Organization (MVMPO)

The MVMPO was first created by the Governor of Massachusetts in 1972. The MVMPO covers the same 15-community geographic area that defines the MVPC region and the MVRTA service area. The current MVMPO membership is as follows:

- Secretary of MassDOT –Stephanie Pollack
- MassDOT Highway Division Administrator –Jonathan L. Gulliver
- Merrimack Valley Planning Commission (MVPC) Director –Karen Conard
- Administrator/CEO Merrimack Valley Regional Transit Authority –Joseph Costanzo
- Mayor of Haverhill –James Fiorentini
- Mayor of Lawrence –Daniel Rivera
- Representing Region 1 (Amesbury, Newburyport, Salisbury) –Neil Harrington
- Representing Region 2 (Newbury, Rowley, West Newbury) –Robert Snow

- Representing Region 3 (Boxford, Georgetown, Groveland, Merrimac) –John Cashell
- Representing Region 4 (Andover, Methuen, North Andover) –Paul Materazzo

Ex officio, non-voting members of the MVMPO include:

- Federal Highway Administration –Massachusetts Division –Jeff McEwen
- Federal Transit Administration – Region I – Mary Beth Mello
- Rockingham Planning Commission MPO (NH), Chairman RPC –Phil Wilson
- Boston MPO, President MAPC –Keith Bergman
- Northern Middlesex MPO, Chairman NMCOG –Pat Wojtas
- Nashua MPO (NH), Chairman NRCP –Susan Ruch

The TIP has been prepared in accordance with 23 CFR 450.326.

The development of the TIP starts with the Regional Transportation Plan (RTP). The MVMPO’s RTP is a twenty-five year plan for transportation projects that can be programmed for implementation with Federal funds. The RTP is fiscally constrained and lists potential future projects in five year blocks. Projects were chosen for the RTP based on MAP-21 transportation planning factors, existing roadway conditions, problems identified through ongoing pavement, congestion, and safety analyses conducted by the MVMPO, local and state project priorities and fiscal factors. Each year, the MVMPO programs projects from the RTP that are ‘ready-to-go’ into its five-year Transportation Improvement Program (TIP). Only those projects that are specifically identified in the RTP, or are consistent with its recommendations, can be programmed in the TIP.

Only projects from the RTP first two banks of years (i.e., 2016 to 2020 and 2021 to 2025) are programmed in the TIP. An inconsistency with spending shown in the RTP is that when the MVMPO’s FFY 2016 RTP was developed, it was assumed the construction of the Bradford Rail Trail in Haverhill would occur in FFYs 2021-2025. The project is moving through the project implementation and design processes more quickly with Phase II of the Bradford Rail Trail expected to be advertised in FFY 2020.

Projects that appear in the TIP were initiated and selected from a number of sources. Bridge projects have been selected and developed by MassDOT’s Bridge section largely based upon the results of their ongoing bridge maintenance program. The Department has made it a priority to develop projects that would correct problems in “Structurally Deficient” (SD) bridges. The region’s Congestion Management Process is used to identify intersections and roadways where significant congestion exists, and

measures the levels of congestion at these locations. This information has been used by local communities to develop roadway projects that are programmed in the TIP. Similarly, locations identified as having safety problems in the region's Safety Monitoring System, or identified as a "crash cluster" by MassDOT, are used by the Department and local communities to develop TIP projects.

Part A. 2. Performance Measures

Federal legislation requires states to develop a Transportation Asset Management Plan (TAMP) that includes Performance Measures for NHS roadways and bridges as part of the asset management process. MassDOT Highway Division submitted an initial TAMP to FHWA on April 30, 2018, the final TAMP will be submitted in June of 2019.

The *Moving Ahead for Progress in the 21st Century Act (MAP-21)* and the *Fixing America's Surface Transportation Act (FAST)* require State DOTs and MPOs to establish performance measures, and targets for these measures, to be used in assessing the transportation system and programming projects for Federal funding categories provided in the Acts. The Final Rules establishing these measures have been released in three separate rule makings. PM1: "HSIP and Safety Performance Management Measures", PM2: "Pavement and Bridge Condition Performance Measures", and PM3: "System Performance/ Freight/ CMAQ Performance Measures". These Rules define the measures to be used in each of the categories.

The PM1 HSIP and Safety Performance Measures apply to all public roads. The PM2 Pavement and Bridge Performance Measures apply only to NHS (National Highway System) roads and bridges. PM3 Performance Measures apply to various facilities as defined below.

MassDOT has established targets based on these performance measures and the MPOs have worked with MassDOT in either a) choosing the same targets, b) adapting them to the specific region, or c) choosing new targets as goals for the MPO. The MVMPO has adopted all of the targets established by MassDOT. MassDOT and the MPOs will work cooperatively to exchange data and performance targets and measures as required by the legislation.

The following are the performance measures, divided into three categories, as defined by the Final Federal Rules:

HSIP and Safety Performance Management Measures to be applied to all public roads (PM1):

- Number of Fatalities
- Rate of Fatalities
- Number of Serious Injuries
- Rate of Serious Injuries
- Number of non-motorized fatalities and non-motorized serious injuries

Pavement and Bridge Condition Performance Measures (PM2):

- Percentage of Pavements of the Interstate System in Good condition
- Percentage of Pavements of the Interstate System in Poor condition
- Percentage of Pavements of the non-Interstate NHS in Good condition
- Percentage of Pavements of the non-Interstate NHS in Poor condition
- Percentage of NHS bridges by deck area classified as in Good condition
- Percentage of NHS bridges by deck area classified as in Poor condition

MassDOT has submitted a draft NHS Transportation Asset Management Plan (TAMP), as required by MAP-21, to address pavement and bridge conditions on the NHS system. The Final version will be submitted in June 2019.

System Performance/ Freight/ CMAQ Performance Measures (PM3):

- Percent of the Person-Miles Traveled on the Interstate that are Reliable
- Percent of the Person-Miles Traveled on the non-Interstate NHS that are Reliable
- Truck Travel Time Reliability (TTTR) Index on the Interstate System
- Annual Hours of Peak Hour Excessive Delay Per Capita
- Percent of Non-SOV Travel on the NHS System
- Total Emission Reduction of all projects funded with CMAQ in areas designated as nonattainment or maintenance for ozone (O₃), carbon monoxide (CO), or particulate matter (PM₁₀ and PM_{2.5})

The MVMPO will work cooperatively with MassDOT to determine which performance measures the MPO will collect data for and measure, and which MassDOT will collect data for and measure and will exchange data and program projects for funding with consideration of meeting the targets established for each measure. The performance measures will be incorporated into the Transportation Improvement Program (TIP) Transportation Evaluation Criteria (TEC) in the scoring categories as indicated in the TEC Scoring Criteria Chart in Section A.3. of the TIP.

Targets are set by examining historic trends in the data and considering future plans for potential improvements.

Safety Performance Measures (PM1)

The Merrimack Valley MPO has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2019. 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 5 year, rolling average trend lines for all FHWA-defined safety measures. For CY 2019 targets, four of the five safety measures—total number of fatalities, rate of fatalities per 100 million vehicle miles traveled, total number of incapacitating injuries, and rate of incapacitating injuries per 100 million VMT—were established by extending their trend lines into the 2015-2019 period. All four of these measures reflect a modest decrease in statewide trends. The fifth safety measure, the total number of combined incapacitating injuries and fatalities for non-motorized modes, is the only safety measure for which the statewide trend line depicts an increase. MassDOT’s effort to increase non-motorized mode share throughout the Commonwealth has posed a challenge to simultaneously reducing non-motorized injuries and fatalities. Rather than adopt a target that depicts an increase in the trend line, MassDOT has elected to establish a target of non-motorized fatalities and injuries and for CY 2019 that remains constant from the rolling average for 2012–2016. In recent years, MassDOT and the Merrimack Valley MPO 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, Merrimack Valley MPO, 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 Tracker¹ 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 guide-

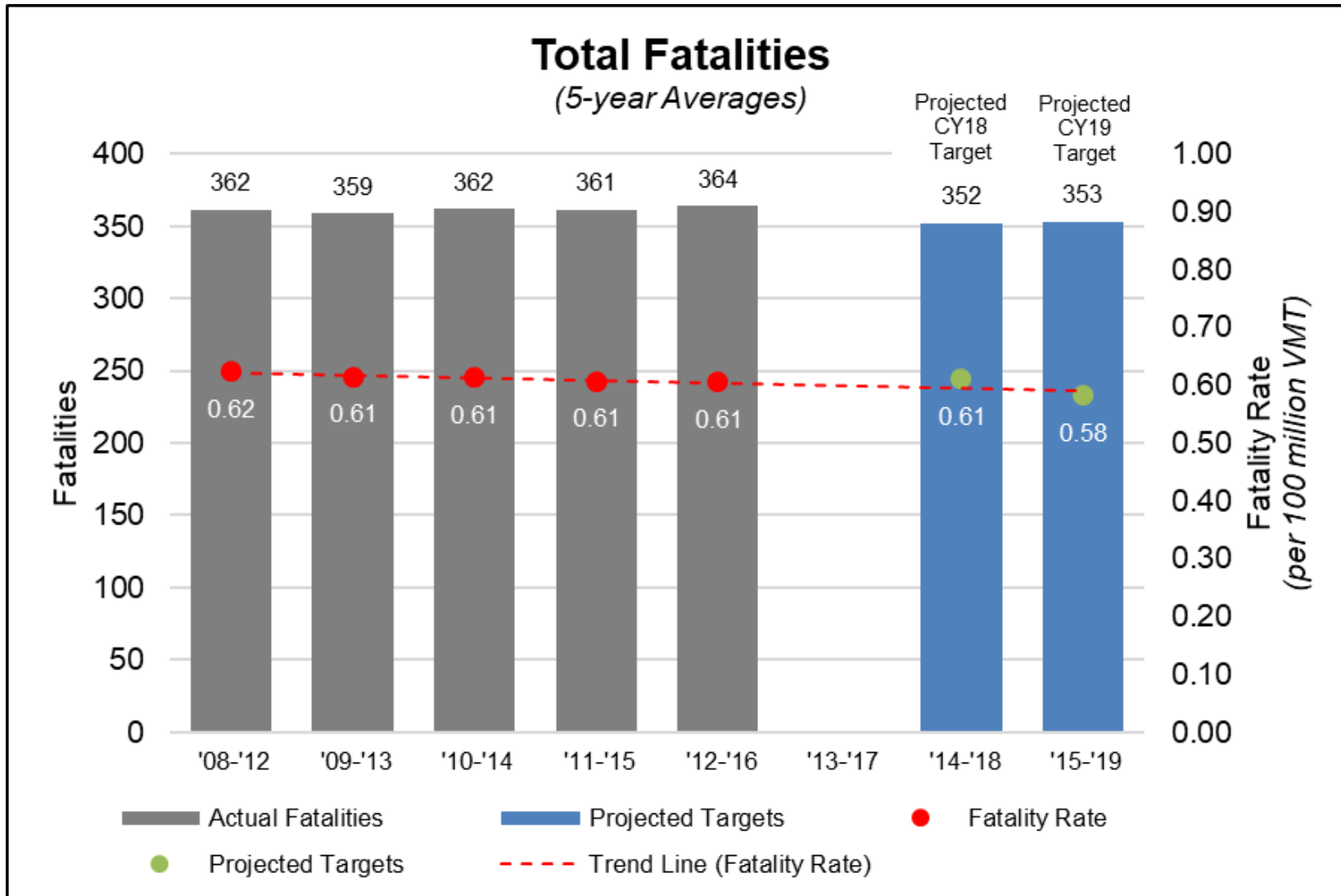
¹ <https://www.mass.gov/lists/tracker-annual-performance-management-reports>

lines require MPOs to adopt MassDOT's annual targets or to establish their own each year.

The safety measures MassDOT has established for CY 2019, and that the Merrimack Valley MPO has adopted, are as follows:

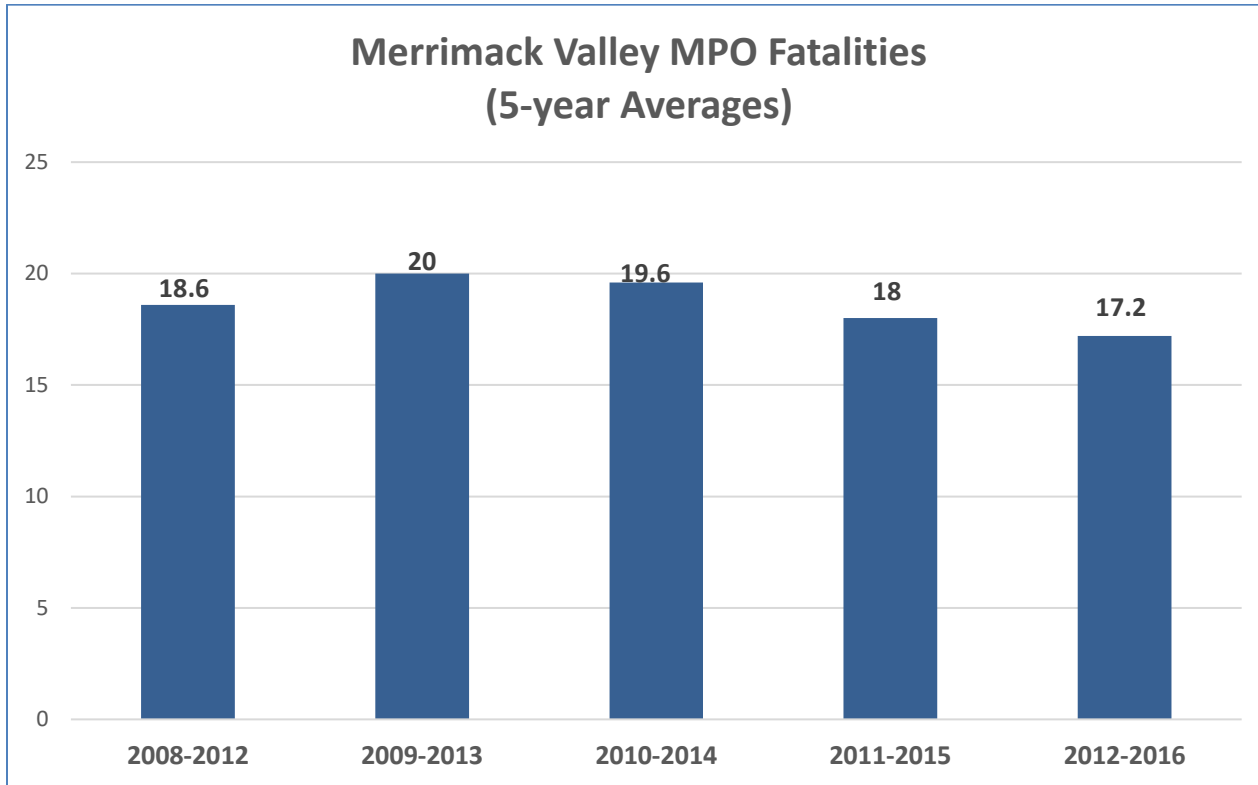
- 1) Fatalities: The target number of fatalities for years CY 2019 is 353, down from an average of 364 fatalities for the years 2012–2016. [See Figure 2 for Our MPO vs. Figure 1 statewide comparison of the trend for this performance measure]
- 2) Rate of Fatalities per 100 million VMT: The target fatality rate for years CY 2019 is 0.58, down from a 0.61 average for years 2012–2016. [See Figure 2 for Our MPO vs. Figure 1 statewide comparison of the trend for this performance measure]
- 3) Serious Injuries: The target number of incapacitating injuries for CY2019 is 2801, down from the average of 3146 for years 2012–2016. [See Figure 4 for Our MPO vs. Figure 3 statewide comparison of the trend for this performance measure]
- 4) Rate of Incapacitating Injuries per 100 million VMT: The incapacitating injury rate target for CY2019 is 4.37 per year, down from the 5.24 average rate for years 2012–2016. [See Figure 4 for Our MPO vs. Figure 3 statewide comparison of the trend for this performance measure]
- 5) Total Number of Combined Incapacitating Injuries and Fatalities for Non-Motorized Modes: The CY2019 target number of fatalities and incapacitating injuries for non-motorists is 541 per year, the same as the average for years 2012–2016. [See Figure 6 for Our MPO vs. Figure 5 statewide comparison of the trend for this performance measure]

Figure 1 Statewide Total Fatalities and Fatal Crash Rates – 5-Year Averages



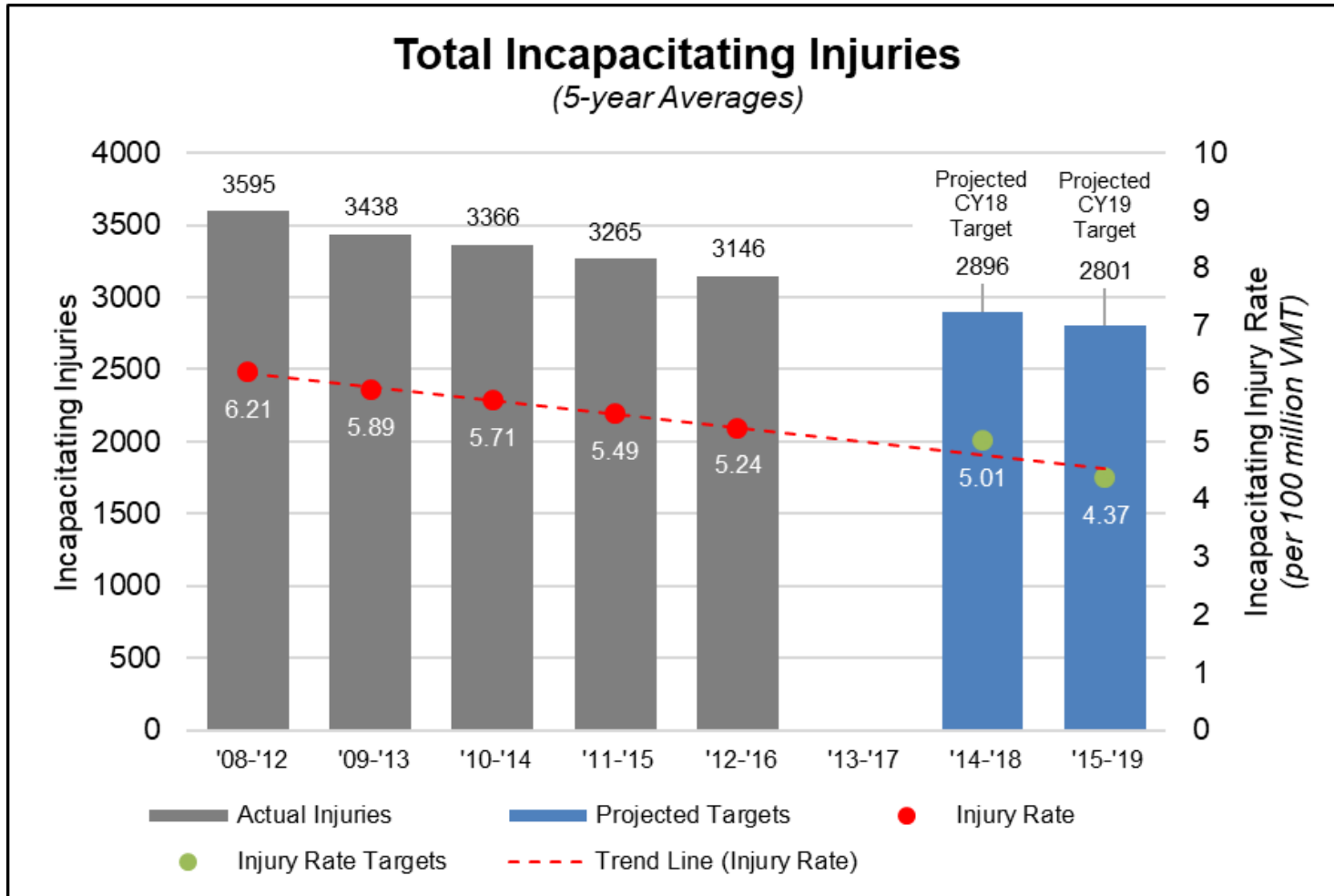
Graph Source: MassDOT

Figure 2 Merrimack Valley Total Fatalities and Fatal Crash Rates – 5-Yr. Averages



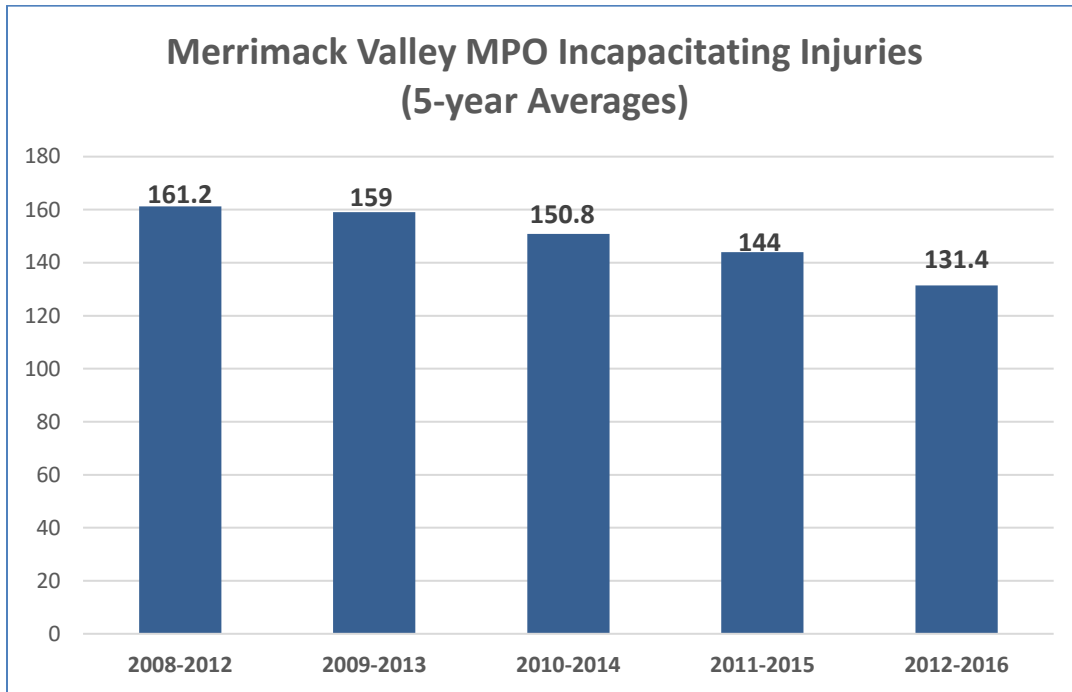
Graph Source: MassDOT

Figure 3 Statewide Total Incapacitating Injuries and Incapacitating Injury Crash Rates



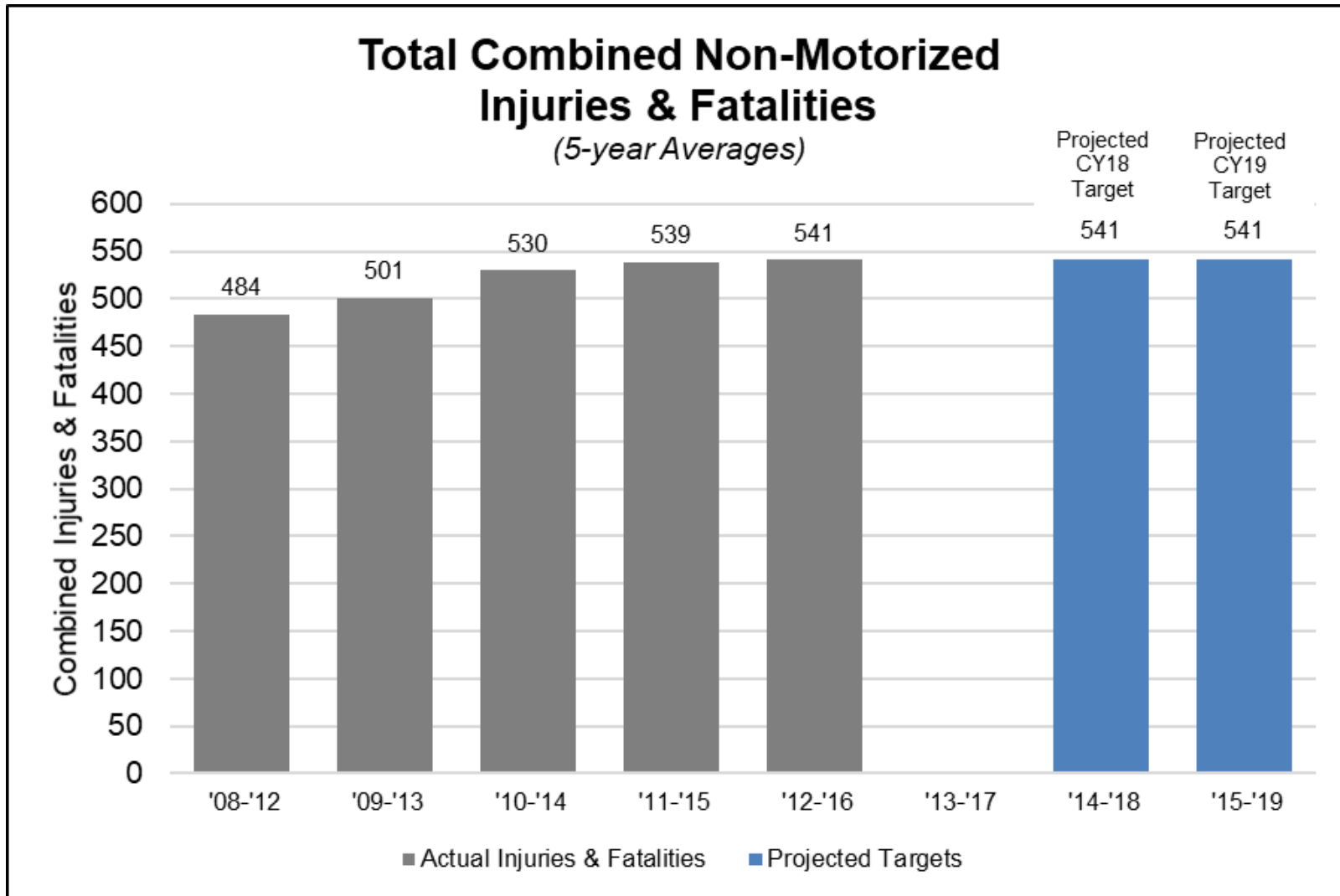
Graph Source: MassDOT

Figure 4 Merrimack Valley Total Incapacitating Injuries and Incapacitating Injury Crash Rates



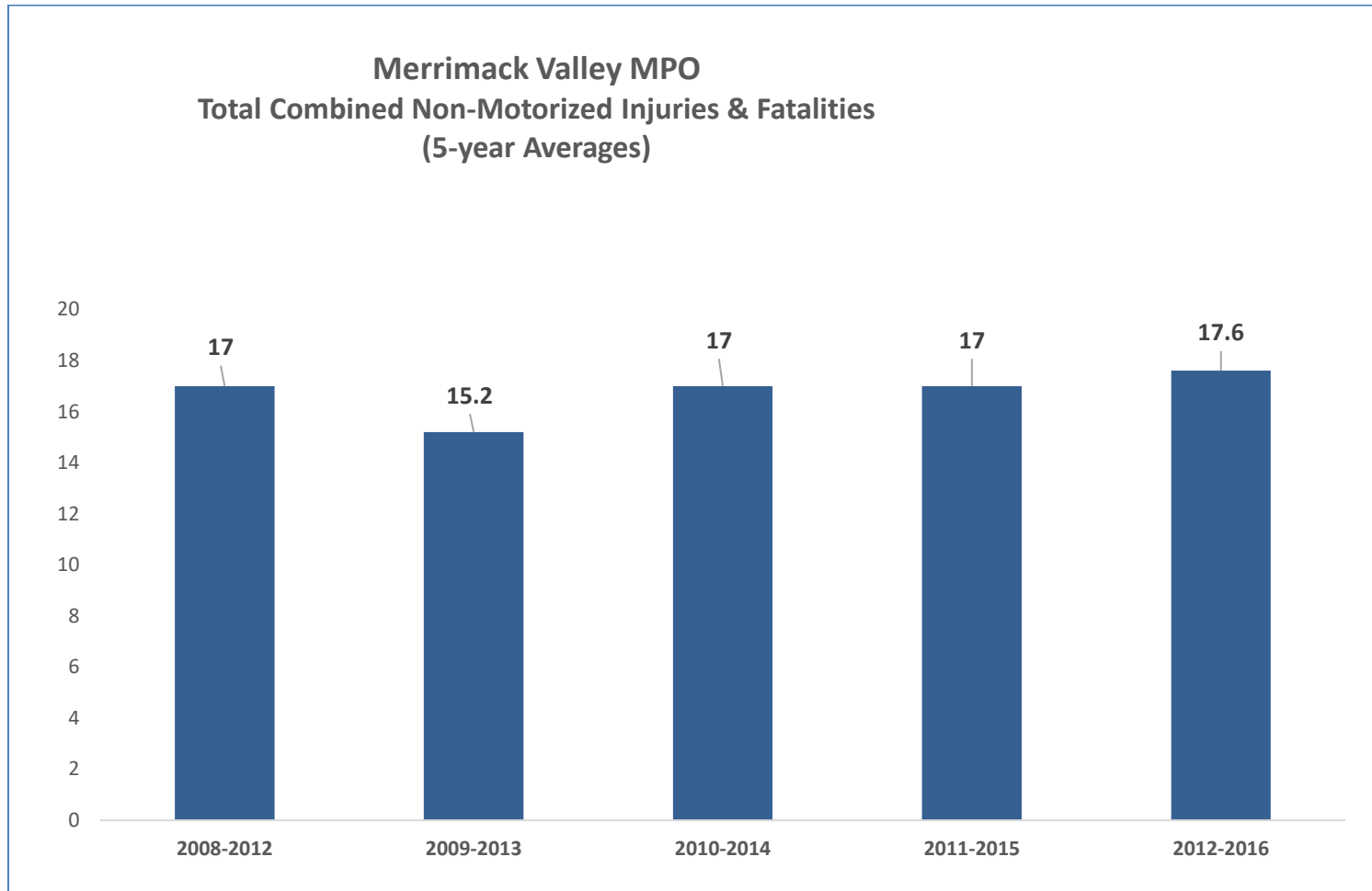
Graph Source: MassDOT

Figure 5 Statewide Combined Cyclist and Pedestrian Fatalities and Injuries



Graph Source: MassDOT

Figure 6 Merrimack Valley Region Combined Cyclist and Pedestrian Fatalities and Injuries



Bridge & Pavement Performance Measures (PM 2)

The Merrimack Valley MPO has chosen to adopt the 2-year (2020) and 4-year (2022) statewide bridge and pavement performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018. 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 of the above performance measures are tracked in greater detail in MassDOT's Transportation Asset Management Plan (TAMP), which is due to be finalized in July 2019.

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 (2020), 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.

Performance Measure	Current (2017)	2-year target (2020)	4-year target (2022)
Bridges in good condition	15.22%	15%	16%
Bridges in poor condition	12.37%	13%	12%
Interstate Pavement in good condition	74.2%	70%	70%
Interstate Pavement in poor condition	0.1%	4%	4%
Non-Interstate Pavement in good condition	32.9%	30%	30%
Non-Interstate Pavement in poor condition	31.4%	30%	30%

Reliability, Congestion, & Emissions Performance Measures (PM3)

Merrimack Valley MPO has chosen to adopt the 2-year (2020) and 4-year (2022) statewide reliability, congestion, and emissions performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018.

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. As this data set has but one year of consistent data, FHWA guidance has been to set conservative targets and to adjust future targets once more data becomes available. To that end, MassDOT's reliability performance targets are set to remain the same.

The Merrimack Valley MPO 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 (2020) and 4-year (2022) 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. In the Boston UZA, the proportion of non-SOV travel has been steadily increasing and is projected to continue increasing at a rate of 0.32% 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 10:00, and between 3:00pm and 7:00pm) divided by the total UZA population. As of target-setting, there was only one year of data available. As such, the performance targets have been set flat until further data is available.

Emissions reduction targets are measured as the sum 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.

Measure	Current (2017)	2-year (2020)	4-year (2022)
Non-Interstate LOTTR	80%	80%	80%
Interstate LOTTR	68%	68%	68%
TTTR	1.85	1.85	1.85
PHED (Boston UZA)	18.31	18.31	18.31
% non-SOV (Boston UZA)	33.6% (2016)	34.82%	35.46%
Emissions Reductions	Baseline (FFY 14–17)	1,622 CO 497.9 Ozone	TBD CO (Springfield) 1.1 Ozone

MassDOT/ Adopted by MVMPO Performance Measures/ Targets Summary Table

Performance Measure Category	Performance Measure	Recent Data	Targets
PM1: HSIP and Safety	Number of Fatalities Statewide (All Public Roads)	364 average number of fatalities/year for 2012 to 2016	CY 2018 Target = 352 CY 2019 Target = 353 fatalities
PM1: HSIP and Safety	Rate of Fatalities Statewide (All Public Roads)	0.61 fatalities per 100 million vehicles miles traveled per year average for 2012 to 2016	CY 2018 Target = 0.61 CY 2019 Target = 0.58 fatalities per 100 million vehicle miles traveled
PM1: HSIP and Safety	Number of Serious Injuries Statewide (All Public Roads)	3,146 average number of serious injuries per year average from 2012 to 2016	CY 2018 Target = 2,896 CY 2019 Target = 2,801 serious injuries
PM1: HSIP and Safety	Rate of Serious Injuries Statewide (All Public Roads)	5.24 serious injuries per 100 million vehicle miles traveled per year average for 2012 to 2016	CY 2018 Target = 5.01 CY 2019 Target = 4.37 serious injuries per 100 million vehicle miles traveled
PM1: HSIP and Safety	Number of Non-motorized Fatalities and Non-motorized Serious Injury Statewide (All Public Roads)	541 average number of combined serious injuries and fatalities per year for non-motorized modes for 2012 to 2016	CY 2018 Target = 541 CY 2019 Target = 541 combined fatalities and serious injuries for non-motorized modes

MassDOT/ Adopted by MVMPO Performance Measures/ Targets Summary Table (Cont.)

Performance Measure Category	Performance Measure	Recent Data	Targets
PM2: Pavement and Bridge Condition	Percentage of Pavements of the Interstate System in Good Condition Statewide	74.2% in CY 2017	CY 2020 Target = 70% CY 2022 Target = 70%
PM2: Pavement and Bridge Condition	Percentage of Pavements of the Interstate System in Poor Condition Statewide	0.1% in CY 2017	CY 2020 Target = 4% CY 2022 Target = 4%
PM2: Pavement and Bridge Condition	Percentage of Pavements of the non-Interstate NHS in Good Condition Statewide	32.9 % in CY 2017	CY 2020 Target = 30% CY 2022 Target = 30%
PM2: Pavement and Bridge Condition	Percentage of Pavements of the non-Interstate NHS in Poor Condition Statewide	31.4% in CY 2017	CY 2020 Target = 30% CY 2022 Target = 30%

MassDOT/ Adopted by MVMPO Performance Measures/ Targets Summary Table (Cont.)

Performance Measure Category	Performance Measure	Recent Data	Targets
PM2: Pavement and Bridge Condition	Percentage of NHS bridges by deck area in Good Condition Statewide	15.22% Currently	CY 2020 Target = 15% CY 2022 Target = 16%
PM2: Pavement and Bridge Condition	Percentage of NHS bridges by deck area in Poor Condition Statewide	12.37% Currently	CY 2020 Target = 13% CY 2022 Target = 12%
PM3: System Performance/ Freight/ CMAQ	Percent of Person-Miles Traveled on the Interstate that are Reliable Statewide	68 % in CY 2017	CY 2020 Target = 68% CY 2022 Target = 68%
PM3: System Performance/ Freight/ CMAQ	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable Statewide	80% in CY 2017	CY 2020 Target = 80% CY 2022 Target = 80%

MassDOT/ Adopted by MVMPO Performance Measures/ Targets Summary Table (Cont.)

Performance Measure Category	Performance Measure	Recent Data	Targets
PM3: System Performance/ Freight/ CMAQ	Truck Travel Time Reliability (TTTR) Index on the Interstate System Statewide	TTTR index in CY 2017 = 1.85	CY 2020 Target = 1.85 CY 2022 Target = 1.85
PM3: System Performance/ Freight/ CMAQ	Annual Hours of Peak Hour Excessive Delay (PHED) per Capita in the UZA	PHED per capita in CY 2017 = 18.31 hours per person in the UZA	2018-2019 Two-year Target = 18.3 2018-2021 Four-year Target = 18.3
PM3: System Performance/ Freight/ CMAQ	Percent of Non-SOV Travel on the NHS System in the UZA	CY 2016 Non-SOV Travel on the NHS in the UZA = 33.6%	CY 2020 Target = 34.5% CY 2022 Target = 35.1%

**Performance Target(s) Project Will Help Meet
(2019 to 2023 Statewide and Regional Target Funds)**

Year (s) Program- med	City / Town	Project Description	Total Cost Programmed	Federal Performance Target(s) Project Will Help Meet
2019- 2020	Amesbury	Amesbury - Reconstruction of Elm Street (# 602418)	\$12,064,000	Number of non-motorized fatalities and non-motorized serious injury.
2021	George- town / Box- ford	Georgetown - Boxford Border to Boston Trail, from Georgetown Road to West Main Street (Route 97) (# 607541)	\$1,874,028	1) Number of non-motorized fatalities and non-motorized serious injury. 2) Percent change in Tailpipe CO ₂ Emissions on the NHS Compared to Calendar Year 2017 Level.
2022	George- town / Newbury	Georgetown - Newbury Border to Boston Trail, (Northern Georgetown to Byfield Section) (# 607542)	\$4,341,120	Number of non-motorized fatalities and non-motorized serious injury.
2021	Groveland	Groveland – Groveland Community Trail, from Main Street to King Street (# 608298)	\$2,365,973	1) Number of non-motorized fatalities and non-motorized serious injury. 2) Percent change in Tailpipe CO ₂ Emissions on the NHS Compared to Calendar Year 2017 Level.
2020	Haverhill	Haverhill – Bradford Rail Trail Extension from Route 125 to Railroad Street (# 608027)	\$1,131,000	Number of non-motorized fatalities and non-motorized serious injury.

**Performance Target(s) Project Will Help Meet
(2019 to 2023 Statewide and Regional Target Funds) (Cont.)**

Year (s) Program- med	City / Town	Project Description	Total Cost Programmed	Federal Performance Target(s) Project Will Help Meet
2018- 2023	Haverhill	Haverhill – Bridge Replacement, H-12-039, I-495 (NB & SB) over Merrimack River (# 605306)	\$118,786,388	1) Percentage of NHS bridges classified as in Good condition. 2) Percentage of Pavements of the Interstate System in Good Condition and in Poor Condition 3) Percent of the Person-Miles Traveled on the Interstate that are Reliable. 4) Truck Travel Time Reliability (TTTR) Index on the Interstate System.
2021	Haverhill	Haverhill – Intersection Improvements at Rt 110 / Rt 108 (#608761)	\$2,099,520	1) Number and Rate of Fatalities 2) Number and Rate of Serious Injuries 3) Number of non-motorized fatalities and non-motorized serious injury. 4) Percent change in Tailpipe CO ₂ Emissions on the NHS Compared to Calendar Year 2017 Level. 5) Percent of the Person-Miles Traveled on the non-Interstate NHS that are Reliable.
2023	Haverhill	Haverhill – Roadway Reconstruction on North Avenue, from Main Street (Route 125) to Plaistow NH	\$3,894,590	Number of non-motorized fatalities and non-motorized serious injury.

**Performance Target(s) Project Will Help Meet
(2019 to 2023 Statewide and Regional Target Funds) (Cont.)**

Year (s) Program- med	City / Town	Project Description	Total Cost Programmed	Federal Performance Target(s) Project Will Help Meet
2023	Lawrence	Lawrence – Lawrence Manchester Rail Corridor (LMRC) Rail Trail (# 608930)	\$17,278,635	Number of non-motorized fatalities and non-motorized serious injury
2019	MVRTA	Flex to FTA for MVRTA new bus up-grade to cleaner fuel buses (# MV0001)	\$698,541	Percent change in Tailpipe CO ₂ Emissions on the NHS Compared to Calendar Year 2017 Level.
2021	Newbury - Newburyport - Salisbury	Newbury - Newburyport - Salisbury - Resurfacing and related work on Route 1 (# 608494)	\$10,271,664	Percentage of Pavements of the non-Interstate NHS in Good condition.
2019	Newburyport	Newburyport - Improvements at Nock Middle School & Molin Upper Elementary School (SRTS) (# 608792)	\$1,866,615	Number of non-motorized fatalities and non-motorized serious injury.

**Performance Target(s) Project Will Help Meet
(2019 to 2023 Statewide and Regional Target Funds) (Cont.)**

Year (s) Program- med	City / Town	Project Description	Total Cost Programmed	Federal Performance Target(s) Project Will Help Meet
2019	North Andover	North Andover - Intersection & Signal Improvements at Route 125 & Massachusetts Avenue (# 606159)	\$5,446,662	1) Number and Rate of Fatalities 2) Number and Rate of Serious Injuries 3) Number of non-motorized fatalities and non-motorized serious injury. 4) Percent change in Tailpipe CO ₂ Emissions on the NHS Compared to Calendar Year 2017 Level. 5) Percent of the Person-Miles Traveled on the non-Interstate NHS that are Reliable.
2021- 2022	North Andover	North Andover - Corridor Improvements on Route 114, between Route 125 (Andover Street) & Stop & Shop Driveway (# 608095)	\$16,816,717	1) Number of non-motorized fatalities and non-motorized serious injury. 2) Percentage of Pavements of the non-Interstate NHS in Good condition. 3) Percent of the Person-Miles Traveled on the non-Interstate NHS that are Reliable. 4) Number and Rate of Serious Injuries
2023	Salisbury	Salisbury – Reconstruction of Route 1 (Lafayette Road)	\$7,343,750	Number of non-motorized fatalities and non-motorized serious injury.

Transit Asset Management (TAM) Plan Performance Management Targets

The following information is from the MVRTA Transit Asset Management Plan prepared 8/20/2018.

Annual Performance Targets and Measures

As a recipient of Federal Transit Administration funds, the MVRTA is required to develop and maintain a Transit Asset Management Plan per Federal Transit Administration's (FTA's) Final Rule at 49 CFR Part 625. As defined by the Rule, Transit Asset Management (TAM) is the strategic and systematic practice of processing, operating, inspecting, maintaining, rehabilitating and replacing transit capital assets to manage their performance, risks and cost over their life cycles to provide safe, cost effective and reliable public transportation.

The preparation of the TAM is based on identifying the transit assets which the MVRTA owns and has direct Capital responsibility for and the performance measures included in the Final Rule that relate to these identified assets. A completed TAM plan is required by September 30, 2018.

	Performance Measure
Equipment Non-revenue support-service and maintenance vehicles	Percentage of vehicles met or exceeded Useful Life Benchmark
Rolling Stock Revenue vehicles by mode, bus/ van	Percent of vehicles met or exceeded Useful Life Benchmark
Facilities Maintenance and administrative facilities: and passenger stations (buildings) and parking facilities	Percentage of Assets with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale.

Using these Performance Measures leads to the setting of targets against the defined Useful Life Benchmark (ULB). FTA defines as:

The expected lifecycle of a capital asset for a particular Transit Provider’s operating environment, or the acceptable period of use in service for a particular Transit Provider’s operating environment.

The MVRTA has defined the ULB as presented in FTA circular C 5010.1E for buses and vans:

Minimum Service-life for Buses and Vans

Category	Length	Minimum Life	
		(Whichever comes first)	
		Years	Miles
Heavy-Duty Large Bus	35 to 45 ft.	12	500,000
Heavy-Duty Small Bus	30 ft.	10	350,000
Medium-Duty Transit Bus	30 ft.	7	200,000
Light-Duty Mid-Sized Bus	25 to 35 ft.	5	150,000
Light Duty Small Bus, Cutaways and Modified Van	16 to 28 ft.	4	100,000

For this first TAM Plan the MVRTA has prepared the following targets:

Transit TAM Targets

Percent of revenue vehicles that have met or exceeded their useful life benchmark:

Bus 5% (Replace 3 model year 2007 buses FFY 2019 = 3/58)

Van 0%

Non-revenue vehicles - percent of service vehicles that have met or exceeded their useful life benchmark:

Maintenance Trucks 0%

SUV (Supervisory vehicle) 14% (Replace 1 model year 2013 supervisory vehicle
FFY 2019 = 1/7)

Facility - percent of facilities rated below 3 on the condition scale:

Passenger/ Parking facilities 0% (McGovern Center, Gateway Surface Parking,
Haverhill Intermodal Parking, Costello Center)

Administrative/ maintenance facilities 0% (85 Railroad Ave. HQ)

Updates to these targets will be done in conjunction with the preparation of the next TAM Plan and the FY 2020-2024 Capital Plan.

In January 2019 the Merrimack Valley MPO voted to adopt the transit TAM performance measure targets set by MVRTA for 2019.

MVRTA/ Adopted by MVMPO Performance Measures/ Targets Summary Table

Category	Performance Measure	2019 Targets
Equipment Non-revenue support-service and maintenance vehicles	Percentage of vehicles met or exceeded Useful Life Benchmark	Maintenance Trucks – 0% SUV (Supervisory Vehicle) – 14%
Rolling Stock Revenue vehicles by mode, bus/ van	Percent of vehicles met or exceeded Useful Life Benchmark	Bus – 5% Van – 0%
Facilities Maintenance and administrative facilities: and passenger stations (buildings) and parking facilities	Percentage of Assets with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale.	Passenger/ Parking facilities – 0% Administrative/ Maintenance facilities – 0%

Part A. 3. Prioritization

The FFYs 2019-2023 Merrimack Valley Metropolitan Planning Organization's Transportation Improvement Program (TIP) contains Federal-aid project programming information for five years. For each year, gross estimates of project costs are listed in the federal fiscal year of the proposed advertise date. Federal fiscal years begin on October 1 and run through September 30. For example, FFY 2019 begins on October 1, 2018 and ends on September 30, 2019. The advertising dates shown for roadway projects were determined based on information provided by the Capital Expenditure and Program Office within MassDOT, the MassDOT District 4 Office, and MVMPO member communities. The MVRTA and MassDOT's Rail and Transit Division determined programming dates for transit projects.

Projects are programmed in the region's TIP based on a number of factors. These include the project's score based upon the MPO's Transportation Evaluation Criteria (TEC), project cost and the availability of STP funding in the years covered in the document. Road and bridge project selection is also largely dependent upon the current and expected design status for each project, which can be affected by such factors as environmental permitting and Right-of-Way (ROW) status. For bridge projects, information from MassDOT's Bridge section is also given primary consideration when scheduling projects.

Transportation Evaluation Criteria

In 2003, the MPOs worked with the then Massachusetts Executive Office of Transportation and Public Works (EOTPW) to develop objective evaluation criteria that could be applied to transportation projects in the Commonwealth. Early in 2004, EOTPW asked planning staff from the then MassHighway Planning, the MassHighway district offices and the regional planning agencies to apply these criteria to projects within their respective Metropolitan Planning Organizations (MPOs). Application of these criteria include not only an evaluation of the magnitude of improvement in the condition, mobility, and safety of transportation projects, but also an evaluation of their community effects and support, the land use and economic development impact, and the environmental effects. A score valued from -3 to 3 is assigned to each of the criteria. In fact, there is at least one score associated with each of the FAST Act ten planning factors. The scores within each category are averaged and then the category averages are added together to reach the total score. The following chart illustrates the data and scoring criteria for each TEC element as well as the planning factors considered in each element, and which TEC elements will be affected by future performance measures.

TEC Element	Data	Scoring	Additional Notes	Planning Factors Considered
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. When official Infrastructure Performance Measures for Pavement are established will be incorporated into this TEC element.
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 Considered
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. When official System Performance Measures for Reliability and Delay are established will be incorporated into this TEC element.
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 Considered
Mobility (Cont.)				
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.
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 Considered
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	Performance Measures of number of fatalities and number of serious injuries are considered in this rating.	Safety; Efficient System Management; Resiliency and Reliability.
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. (Performance Measure)	Safety; Resiliency and Reliability; Enhance Travel and Tourism. Safety Performance Measures for Number of non-motorized fatalities and serious injuries are considered into this TEC element.

TEC Element	Data	Scoring	Additional Notes	Planning Factors Considered
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 in on the NHS = 1 Is not any of the 3 listed in the data column = 0		Security; Safety.
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;

TEC Element	Data	Scoring	Additional Notes	Planning Factors Considered
Community Effects and Support (Cont.)				
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 Considered
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 Considered
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 Considered
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 Considered
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		Protect and Enhance the Environment. When official System Performance Measures for change in CO ₂ emissions on the NHS are established will be incorporated into this TEC element.
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 Considered
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.

The resulting Transportation Evaluation Criteria (TEC) scores for selected projects in the Merrimack Valley region that were derived by applying these criteria are shown in Appendix C and also in the 'Additional Information' column in the project listings. It is the goal of the MVMPO that these criteria ratings, along with information related to the readiness of projects, will make the planning process, and more specifically, the selection and prioritization of projects, more transparent to the general public. A sample project evaluation sheet showing the various criteria is in Appendix D.

The use of these TEC scores also allows the Merrimack Valley MPO to meet FAST Act requirements for programming Transportation Alternatives (TA) funding (similar to TAP funding from the previous legislation). TA funding is a set-aside of Surface Transportation Block Grant Programming (STBG) through a competitive process and, in general, helps to manage performance by focusing available funding on the highest regional priorities. It also helps to draw attention to the reader that FAST Act is a very Performance Measure - oriented piece of legislation.

Part A. 4. Public Participation

The principal objective of this document is the provision of an additional point for public access to and review of the transportation planning process. This FFYs 2019-2023 Transportation Improvement Program was developed in accordance with the Public Participation Process established for the Merrimack Valley Metropolitan Planning Organization (MVMPO). The MVMPO amended its current Public Involvement Process in March of 2017, it is contained in the [MVMPO Public Participation Plan as Amended through March 2017](#) which is on the MVPC website in Transportation Reports. The Process applies to the development of the Transportation Improvement Program (TIP), the Regional Transportation Plan (RTP) and the Unified Planning Work Program (UPWP). The Public Involvement Process endorsed by the MVMPO is also used by the MVRTA as its public involvement process. The notice of public involvement and time established for review and comment for the development of this TIP satisfies the Program of Project requirements established by the Federal Transit Administration (FTA).

The Merrimack Valley MPO's Public Participation Plan as amended through March 2017, reflects the consultation requirements identified in the FAST Act of 2015 and prior federal transportation authorizations, and the existing transportation planning regulations developed by the U.S. Department of Transportation for the development of Regional Transportation Plans and Transportation Improvement Programs. This document identifies a number of stakeholders to be consulted in developing these docu-

ments. In developing the Draft FFYs 2019-2023 Transportation Improvement Program, all MVMPO stakeholders were given notice that the process of developing the FFYs 2019-2023 TIP was beginning. Stakeholders were also notified of the availability of the draft document for public review and comment.

Public Participation Plan Stakeholder List

Listed below are categories of interested individuals, organizations and other stakeholders (Interested Parties) identified by the MVMPO for inclusion in the PPP. They are defined based on the individual groups identified in the FAST Act of 2015 and prior federal transportation authorizations, and the existing transportation planning regulations developed by the U.S. Department of Transportation.

The MVMPO continues to add individuals, organizations or other stakeholders to this list and their addition is not considered an act requiring the formal amendment of the PPP. Similarly, any of the individuals or organizations identified below may request to be removed from the mailing list and such action does not necessitate a formal PPP amendment.

Individuals, including:

- Interested individuals, business persons
- Merrimack Valley Transportation Committee (MVTC) members
- Libraries
- City/Town Clerks
- MVMPO Region Congressional Delegation
- MVMPO Region Legislative Delegation

Affected public agencies, including:

- Boards of Selectmen / City Councils
- Chief Elected Officials
- City and Town Engineers
- Federal Emergency Management Agency
- Federal Highway Administration
- Federal Transit Administration
- Greater Derry-Salem Cooperative Alliance for Regional Transportation (CART)

- Local Departments of Public Works
- Local Police Departments
- Local Traffic and Safety Committees
- MassRIDES
- Massachusetts Department of Environmental Protection
- MBTA Commuter Rail Officials
- Massachusetts Executive Office of Housing and Economic Development
- Massachusetts Executive Office of Public Safety and Security
- MassDOT
- Merrimack Valley Regional Transit Authority
- Metropolitan Area Planning Council
- Nashua Regional Planning Commission
- Rockingham Planning Commission
- U.S. Environmental Protection Agency

Representatives of public transportation employees, including:

- Truck Driver's Union Local #170

Freight shippers, including:

- P.J. Murphy Transportation
- JB Hunt
- Estes Express
- Shaheen Brothers
- ABF Freight
- PanAm Railways
- Bonney's Express

Providers of freight transportation services, including:

- United Parcel Service
- Federal Express

Private profit- and non-profit providers of transportation in the region, including:

- Assist Incorporated
- C&J Transportation
- Cape Ann Transit Authority (CATA)
- Central Wheelchair and Van Transportation
- EMT Corporation
- Local Taxi Companies
- Northern Essex Elder Transportation (NEET)
- Other Transportation Providers Identified in the Regional Transportation Plan
- The Coach Company
- TransCare

Representatives of users of public transportation, including:

- American Training, Inc.
- Cambridge College
- Community Action Incorporated (CAI)
- Emmaus, Inc.
- Elder Services of the Merrimack Valley
- Local Senior Centers/Councils on Aging
- Northeast Independent Living Program
- Merrimack College
- Merrimack Valley Hospice
- Merrimack Valley Workforce Investment Board, Inc.
- Northern Essex Community College
- Office of Employment Services

Representatives of bicyclist and pedestrian advocacy organizations, including:

- Andover Trails Committee
- Bay Circuit Alliance
- Coastal Trails Coalition
- Essex National Heritage Commission
- Essex County Trail Association

- Groveland Open Space and Recreation Committee
- MassBike
- Merrimack Valley Off-Road Trails Committee

Representatives for the community of individuals with disabilities, including:

- Executive Office of Health and Human Services
- Northeast Independent Living Program
- Department of Mental Health
- Massachusetts Commission for the Blind
- Area Nursing Homes
- United Cerebral Palsy
- CLASS Inc.
- Fidelity House
- Association of Retarded Persons (ARC)

Organizations and facilities that serve low-income and minority households who traditionally have been underserved by existing transportation systems and may face challenges accessing employment and other services. including:

- MVRTA Transit Centers in Amesbury, Haverhill and Lawrence (post notices)
- Social Security Offices
- Employment Offices (post notices)
- Ethnic, Civic/Social, Faith-Based and Veterans Organizations
- Merrimack Valley Goodwill
- Area Hospitals
- Salvation Army
- Groundwork Lawrence
- Lawrence Community Works
- United Way of the Merrimack Valley
- Methuen Arlington Neighborhood, Inc.
- YMCA/YWCA

Agencies and officials responsible for other planning activities within the MPA that are affected by transportation, including:

a. State and local planned growth:

1. Area Planning Boards
2. Mass Development
3. Merrimack Valley Transportation Management Association
4. The Junction Transportation Management Organization

b. Economic development:

1. Chambers of Commerce
2. Economic Development Administration
3. Local Community Development Directors
4. Merrimack Valley Economic Development Council

c. Environmental agencies and federal lands:

1. Andover Village Improvement Society (AVIS)
2. Essex County Greenbelt Association
3. Local Conservation Commissions
4. MassRiverways
5. Merrimack River Watershed Council
6. National Park Service
7. Powwow River Watershed Association
8. Parker River Clean Water Association
9. Shawsheen River Watershed Association
10. Trustees of Reservations
11. U.S. Environmental Protection Agency (EPA)
12. U.S. Fish and Wildlife Service

d. Airport operations:

1. Lawrence Airport Commission

e. Other Interested Parties

1. Conservation Law Foundation

The notices were sent directly to 888 addressees representing these groups, 600 via e-mail and 288 via traditional mail.

In addition to these direct mailings, and in accordance with this process, public notice of the Draft FFYs 2019-2023 Transportation Improvement Program was published in the *Lawrence Eagle Tribune*, *Newburyport Daily News*, *Haverhill Gazette* (Published Weekly) and *Rumbo News* informing the public of its right to comment on the document which would be available at the MVPC office, the MVPC website and local libraries from May 1, 2018 through May 21, 2018. It said that comments would be received through May 21, 2018 and that two separate public hearings on the document would take place on May 16, 2018 at 1:00 PM and at 6:00 PM at the MVPC office at 160 Main Street in Haverhill, MA. The MVMPO will summarize comments that are received during the 21-day review and comment period and will include this summary in the Final FFYs 2019-2023 TIP. Public input in developing the TIP was sought at the following meetings in 2018:

- January 24, 2018, February 28, 2018, March 28, 2018, April 25, 2018 and May 23, 2018 MVMPO Meetings;
- February 1, 2018, March 1, 2018, April 5, 2018 and May 3, 2018 MVRTA Advisory Board meetings held at the MVRTA Office;
- February 15, 2018, March 15, 2018 and May 17, 2018 Merrimack Valley Planning Commission (MVPC) meetings;
- March 28, 2018 SALSA – Supporting Active Lifestyles for All - City of Lawrence Mayor’s Taskforce held at Groundwork Lawrence;
- April 6, 2018 MVPC Legislative Caucus at Northern Essex Community College;
- April 6, 2018 MVPC Mayors & Managers Coalition at Northern Essex Community College;
- March 7, 2018 and April 4, 2018 DPW Directors/Stormwater Collaborative Meeting
- May 8, 2018 Methuen Arlington Neighborhood (MAN, Inc.) meeting held in Methuen

The above meetings were held at the Merrimack Valley Planning Commission unless otherwise stated.

Part A. 5. Amendment/Adjustment Procedures

The following amendment/adjustment procedures are hereby adopted to consist of the following:

Minor adjustments to the TIP do not require formal MPO action and can be made via the administrative action of the Merrimack Valley MPO. These minor adjustments are limited to:

- .Moving a project from Fiscal Year 2 to Fiscal Year 1 (Annual Element);
- .Moving a project from Fiscal Year 2 or later to a later Fiscal Year;
- .Changing the scope and description of a project as long as they are minor changes;
- .Changing funding amounts that are less than a ten percent increase in project cost if project cost is more than \$5 million dollars;
- .Changing funding amounts that are an increase of less than \$500,000 if project cost is \$5 million dollars or less;
- .Changing funding sources.

Major changes continue to require MPO action through the formal amendment process. Major changes would require a twenty-one day public review and comment period that includes a public hearing. These changes include, but are not limited to:

- .Advancement of other than a Fiscal Year 2 project;
- .Ten percent or more increases in the construction cost estimate for a Fiscal Year 1 project costing more than \$5 million dollars;
- .Project cost increase of \$500,000 or more, in the construction cost estimate for a Fiscal Year 1 project costing \$5 million dollars or less;
- Adding a new project.
- Deleting a project
- Major change in project/project phase initiation dates or design scope

Part A. 6. High Priority Projects

SAFETEA-LU contained a number of earmarked transportation projects that were to receive federal funding. Specific funding amounts were obligated to each of these projects, but no additional funding was included in SAFETEA-LU to complete them. Consequently, states with these projects must implement them within the annual federal authorization limits established in the legislation. The Merrimack Valley region contains eleven such projects which are shown below along with their status:

<u>Highway High Priority Projects</u>	<u>Status</u>
Amesbury/Newburyport – Rehabilitation of I-95 Whittier Bridge	Under Construction
Andover – Design, Engineering and Construction at I-93 The Junction Interchange, (Andover, Tewksbury, and Wilmington)	Draft EIR/EIS Being Developed
Haverhill – Construct Haverhill intermodal center access and vehicle capacity improvements.	Project Complete
Lawrence – Design and construct Canal and Union Street Corridor improvements.	Project Complete
Lawrence – Construct access improvements to the Lawrence Gateway Project.	Project Complete
Methuen – Design, engineering and construction of Methuen Rotary alternative at I-93 and Routes 110 and 113.	Project Complete
Newbury – Rehabilitation and paving of Parker River Road	Project Complete
North Andover – Improvements to Mass. Ave., Andover St., Osgood St., Salem St and Johnson St. in the Old Town Center of North Andover	Project Complete
Parker River National Wildlife Refuge – Preliminary engineering for Rehabilitation and paving of Sunset Drive in National Wildlife Refuge	Project Complete
Salisbury to Boxford – Design, Engineer, Permit and Construct “Border to Boston Bikeway” rail trail project	Project Under Design

<u>Transit Projects for Bus and Bus-Related Facilities and Clean Fuels Grant Program</u>	<u>Status</u>
Haverhill – Design and Construct Intermodal Transit Parking Improvements.	Project Complete (see above)
Lawrence – Gateway Intermodal and Quadrant Area Reuse Project.	Project Complete (see above)
Newburyport – Design and Construct Intermodal Facility	Project Under Construction

Part A. 7. Advance Construction

Advance Construction is a Federal-aid fund management tool, which as described by the Federal Highway Administration website:

“...allows states to begin a project even in the absence of sufficient Federal-aid obligation authority to cover the Federal share of project costs. It is codified in Title 23, Section 115. Advance construction eliminates the need to set aside full obligational authority before starting projects...At some future date when the state does have sufficient obligational authority, it may convert an advance-constructed project to a Federal-aid project by obligating the permissible share of its Federal-aid funds and receiving subsequent reimbursements.”

In other words, the state pays for the project with non-Federal-aid funds to begin with and can later seek reimbursement of the Federal share of the funding category’s project cost by obligating Federal-aid funding in future years.

Projects must meet the following criteria before they can be designated to use the Advanced Construction (AC) funding mechanism:

1. The project’s estimated Federal participating cost exceeds the **total** regional annual target (i.e. sum of HSIP, CMAQ, TA and Non HSIP/CMAQ/TA), and
2. Construction, based on an engineering review of the project, will take place during all the years for which federal funding is programmed.

The following projects are programmed in the FFY 2019-2023 TIP using this Advance Construction (AC) method:

Amesbury –	Reconstruction of Elm Street
Haverhill –	Bridge Replacement, H-12-039, I-495 (NB & SB) over Merrimack River
North Andover-	Corridor Improvements on Route 114, between Waverly Road & Stop & Shop Driveway
Haverhill -	Reconstruction on North Avenue from Main Street (Route 125) to Plaistow NH

Part A. 8. Transportation Funding Programs

Projects listed in the TIP must show the sources of funding that will be used to complete the project. The projects in the FFYs 2019 -2023 TIP are slated to use funding from the following Federal-aid funding programs identified in the FAST Act federal transportation funding authorization. Please note that in some cases Federal-aid funding is from older funding programs established in earlier legislation such as SAFETEA-LU and MAP-21. Projects may also receive non-Federal Aid funding which is shown in the project listings.

Highway Projects

Bridge Replacement and Rehabilitation ((BR) (continued in FAST Act)) - funds replacement and repair of Structurally Deficient or unsafe bridges in urban and rural areas on any public road. Bridges can be on the federal aid system (BR ON) or off system (BR OFF).

Funding: Federal - 80%, State - 20%

Congestion Mitigation and Air Quality Improvement Program ((CMAQ) (continued in FAST Act)) – funds projects that reduce congestion and improve air quality.

Funding: Federal - 80%, State - 20%

High Priority Projects (HPP) (Carryover from SAFETEA-LU) – funds up to 80% of the costs of specific transportation projects identified in SAFETEA-LU. These projects have a separate allocation, but do not receive additional funds, and are therefore subject to the state’s federal authorization limit.

Funding: Federal- 80%, State – 20%

Highway Safety Improvement Program ((HSIP) (continued in FAST Act)) - funds safety improvement projects at high crash locations and Railway-Highway Crossings.

Funding: Federal - 90%, State – 10%

National Highway Performance Program (NHPP) (continued in FAST Act) - funds projects on all National Highway System Roadways.

Funding: Varies, generally Federal - 80%, State – 20%, but for the Interstate System, Federal - 90%, State – 10%

Non-Federal Aid (NFA) - funds construction, reconstruction, and improvement projects on roads and bridges in urban and rural areas.

Funding: State - 100% (Transportation Bond Bill), or Private - 100%

Transportation Funding Programs - Highway Projects (Continued)

STP Enhancements ((STP E) ((SAFETEA-LU; not continued in MAP-21)) - a portion of Surface Transportation Program funding for enhancement projects chosen by states and localities.

Funding: Federal -80%, State - 20%

Transportation Alternatives Program (TAP) – (MAP-21, replaced in FAST Act with Transportation Alternatives (TA) set- aside of STBG funds) - funds for projects which can be defined as transportation alternatives including bicycle and pedestrian facilities, enhanced mobility, community improvements, environmental mitigations, and various other types of transportation alternatives as defined in FAST Act.

Funding: Federal - 80%, State - 20%

Transit Projects

Projects from the following Federal-aid (FAST Act) and non-Federal-aid funding categories are shown in the FFY 2019-2023 TIP.

Section 5307 (Capital and Planning) (continued in FAST Act) - funds routine capital projects and planning assistance in urban areas. This is an urban formula grant program for MVRTA Preventative Maintenance and ADA costs.

Funding: Federal - 80%, State - 20% (Bond Issue Funds) (capital and planning expenses)

State funding for the MVRTA's operating budget is provided through an agreement with the Transit Division of MassDOT. Local funds are derived from community assessments based on the number of route miles and special services operated within each community.

The Merrimack Valley Planning Commission will provide the 20% match for the planning activities it will conduct for the Merrimack Valley Regional Transit Authority under its Section 5307 transit planning contract with the Authority.

Section 5309 (continued in FAST Act) - funds capital projects in urban areas which can be characterized as major capital investments in public transportation equipment and facilities. This is a discretionary grant program.

Funding: Federal - 80%, State - 20% (Transportation Bond Issue)

Section 5310 (continued in FAST Act)- provides capital funds, through the State, to private non-profit corporations and organizations to assist them in providing transportation services to meet the special needs of elderly and disabled persons.

Funding: Federal - 80%, Funding Applicant - 20%

Section 5339 (continued in FAST Act) - provides capital funds, through the State, for bus and bus related equipment and facilities.

Funding: Federal - 80%, Funding Applicant - 20%

Organization of Project Listings – Highway Projects

The TIP includes sections that identify the MPO's priority road and bridge projects using a format prescribed by MassDOT's Office of Transportation Planning. MassDOT is aligning the FFYs 2019 to 2023 Statewide Transportation Improvement Program (STIP) with the MassDOT Capital Investment Plan (CIP). The CIP identifies three capital planning priorities: reliability, modernization and expansion investments. The STIP will now align program names with CIP investment priorities as follows:

Reliability

- Bridge program (including investments in inspections, systematic maintenance, on-system NHS bridges, on-system non-NHS bridges, and off-system bridges)
- Interstate pavement program
- Non-Interstate DOT pavement program
- Roadway improvements program
- Safety improvements program

Modernization

- ADA retrofits program
- Intersection improvements program
- Intelligent Transportation Systems program
- Roadway reconstruction program

Expansion

- Bicycles and pedestrians program
- Capacity program

For the FFYs 2019 to 2023 TIP, the Regional Target funding amounts, distributed via statewide formula to the regions across the state, are initially programmed by the regions as STBG (also known as STP) funding category projects and MassDOT will inform regions if projects are to be partitioned by the HSIP, CMAQ and TAP categories.

Section 1A / Regionally Prioritized Projects

- Federal-Aid STBG Projects Using MVMPO Target Authority (STP)
- Federal-Aid HSIP Projects Using MVMPO Target (HSIP)
- Federal-Aid CMAQ Projects Using MVMPO Target (CMAQ)
- Federal-Aid TAP (now set aside of STBG funding) Projects Using MVMPO Target (TAP)

Section 1B / Earmark or Discretionary Grant Funded Projects (Provided by MassDOT)

- Federal-Aid Earmark or Discretionary Grant Funded Projects

Section 2A / State Prioritized Reliability Projects (Provided by MassDOT)

- Bridge Program / Inspections
- Bridge Program / Off-System
- Bridge Program / On-System (NHS)
- Bridge Program / On-System (Non-NHS)
- Bridge Program / Systematic Maintenance
- Interstate Pavement
- Non-Interstate Pavement
- Roadway Improvements
- Safety Improvements

Section 2B / State Prioritized Modernization Projects (Provided by MassDOT)

- ADA Retrofits
- Intersection Improvements
- Intelligent Transportation Systems
- Roadway Reconstruction

Section 2C / State Prioritized Expansion Projects (Provided by MassDOT)

- Bicycles and Pedestrians
- Capacity

Section 3 / Planning / Adjustments / Pass-throughs (Provided by MassDOT)

- Planning / Adjustments / Pass-throughs

Section 4 / Non-Federally Aided Projects (Provided by MassDOT)

- Non-Federal Aid

Each highway project in the TIP contains the following information:

Amendment/Adjustment Type – used to identify the type of amendment when changes are made to the document.

STIP Program – STIP program names as defined in the Organization of Highway Project Listings section above.

MassDOT Project ID - project identification numbers given by MassDOT for each highway and bridge project.

MPO – identifies the Metropolitan Planning Organization within which the project is located.

Municipality Name – identifies the community where the project is located.

MassDOT Project Description–includes the community, or communities, in which the project is located and a brief description of work to be funded under the project. This description is exactly the same as MassDOT has input to its project information pages.

MassDOT District -MassDOT highway district number (Merrimack Valley MPO is part of District 4);

Funding Source - abbreviation for the funding category from which funding is expected. (Funding categories and abbreviations are explained at the beginning of Part A.8.);

Total Programmed Funds- estimated cost of project in Fiscal Year in which advertising is expected; *

Federal Funds – portion of Total Programmed Funds provided by Federal Funding;

Non-Federal Funds– portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds;

Additional Information - a) Planning / Design / Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-State Non-Federal match; g) earmark details; h) TAP project proponent; i) other information.

* Inflation increases project costs and therefore **the project costs** have been increased by **4% each** future year of the TIP.

Organization of Project Listings – Transit Projects

Each transit project in the TIP contains the following information:

Project Number – Transit Project number from MassDOT

Agency – MVRTA (Merrimack Valley Regional Transit Authority) is the regional transit authority;

Line Item – The FTA Line Item number

Project Description – a brief description of work to be funded under the project;

Carry Over – indicates whether Carry over funding is being used;

Federal Funds – Portion of Total Programmed Funds provided by Federal Funding;

State Funds – portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds, coming from States sources;

TDC –Transportation Development Credits, and

Local Funds – portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds, coming from local funding sources other than State funding sources.

Total - estimated total cost of project.

Part B. Project Listings
Highway Projects

2019 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
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► Section 1A / Regionally Prioritized Projects

► Regionally Prioritized Projects

	Roadway Reconstruction	602418	Merrimack Valley	Amesbury	AMESBURY- RECONSTRUCTION OF ELM STREET	4	STP	\$ 3,955,071	\$ 3,164,057	\$ 791,014	a) Construction; b) \$11,178,124 = \$3,955,071 STP 2019 + \$7,223,053 STP 2020; c) AC Year 1 of 2 = \$3,955,071; d) TEC = 5.98 out of 18;
	Planning / Adjustments / Pass-throughs	MV0003	Merrimack Valley	N/A	FLEX TO FTA FOR MVRTA BIKE RACKS FOR BUSES AND FOR BUCKLEY, MCGOVERN AND COSTELLO TRANSPORTATION CENTERS	4	STP	\$ 110,000	\$ 88,000	\$ 22,000	e) Transfer to FTA
	Planning / Adjustments / Pass-throughs	MV0001	Merrimack Valley	N/A	FLEX TO FTA FOR MVRTA NEW BUS UPGRADE TO CLEANER FUEL BUSES	4	STP	\$ 698,541	\$ 558,833	\$ 139,708	e) Transfer to FTA
	Roadway Reconstruction	606159	Merrimack Valley	North Andover	NORTH ANDOVER- INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	4	STP	\$ 4,978,312	\$ 3,982,650	\$ 995,662	a) Construction; b) \$5,446,662 = \$4,978,312 STP + \$442,956 HSIP + \$25,394 Earmark; d) TEC = 7.95 out of 18; g) Demo ID MA 175
	Roadway Reconstruction	606159	Merrimack Valley	North Andover	NORTH ANDOVER- INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	4	HSIP	\$ 442,956	\$ 398,660	\$ 44,296	a) Construction; b) \$5,446,662 = \$4,978,312 STP + \$442,956 HSIP + \$25,394 Earmark; d) TEC = 7.95 out of 18; g) Demo ID MA 175
			Merrimack Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ►								\$ 10,184,880	\$ 8,192,200	\$ 1,992,680	◄ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; **Column C)** Enter ID from ProjectInfo; **Column E)** Choose Municipality Name from dropdown list; **Column H)** Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; **Column I)** Enter the total amount of funds being programmed in this fiscal year and for each funding source; **Column J)** Federal funds autocalculate. Please verify the amount and only change if needed for flex. **Column K)** Non-federal funds autocalculate. Please verify the split/match - if matching an FTA flex, coordinate with Rail & Transit Division before programming; **Column L)** Enter Additional Information as described - please do not use any other format.

Total Regional Federal Aid Funds Programmed ►	\$ 10,184,880	\$ 10,184,880	◄Total	\$ -	Target Funds Available
STP programmed ►	\$ 9,741,924	\$ 7,793,539	◄ STP		
HSIP programmed ►	\$ 442,956	\$ 398,660	◄ HSIP		
CMAQ programmed ►	\$ -	\$ -	◄ CMAQ		
TAP programmed ►	\$ -	\$ -	◄ TAP		

► Section 1B / Earmark or Discretionary Grant Funded Projects

► Other Federal Aid

	Other Federal Aid	606159	Merrimack Valley	North Andover	NORTH ANDOVER- INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	4	HPP	\$ 25,394	\$ 20,315	\$ 5,079	a) Construction; b) \$5,446,662 = \$4,978,312 STP + \$442,956 HSIP + \$25,394 Earmark; d) TEC = 7.95 out of 18; g) Demo ID MA 175
			Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ►								\$ 25,394	\$ 20,315	\$ 5,079	◄ Funding Split Varies by Funding Source

► Section 2A / State Prioritized Reliability Projects

2019 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
► Bridge Program / Inspections											
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System											
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
	Bridge Program	605306	Merrimack Valley	Haverhill	HAVERRILL - BRIDGE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP-On	\$ 23,703,426	\$ 18,962,741	\$ 4,740,685	AC Year 2 of 6, Total Cost \$118,786,388
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (NHS) subtotal ►								\$ 23,703,426	\$ 18,962,741	\$ 4,740,685	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
	Bridge Program		Merrimack Valley					\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											

2019 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i></small>
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
Non-Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Roadway Improvements											
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Safety Improvements											
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ►								\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 2B / State Prioritized Modernization Projects											
► ADA Retrofits											
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	

2019 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Intelligent Transportation Systems											
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Reconstruction											
	Roadway Reconstruction	608792	Merrimack Valley	Newburyport	NEWBURYPORT- IMPROVEMENTS AT NOCK MIDDLE SCHOOL & MOLIN UPPER ELEMENTARY SCHOOL (SRTS)	4	TAP	\$ 1,866,615	\$ 1,493,292	\$ 373,323	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ►								\$ 1,866,615	\$ 1,493,292	\$ 373,323	◀ Funding Split Varies by Funding Source
► Section 2C / State Prioritized Expansion Projects											
► Bicycles and Pedestrians											
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
Bicycles and Pedestrians subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Capacity											
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 3 / Planning / Adjustments / Pass-throughs											
► Planning / Adjustments / Pass-throughs											
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	

2019 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program I, (SPR I), Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program II, (SPR II), Research	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Recreational Trails	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

► Section 4 / Non-Federally Aided Projects

► Non-Federally Aided Projects

	Non Federal Aid		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ▶								\$ -		\$ -	◀ 100% Non-Federal

2019 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ▶	\$ 35,780,315	\$ -	\$ 35,780,315	◀ Total Spending in Region
Federal Funds ▶	\$ 28,668,548		\$ 28,668,548	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 7,111,767	\$ -	\$ 7,111,767	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2020 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
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► Section 1A / Regionally Prioritized Projects

► Regionally Prioritized Projects

	Roadway Reconstruction	602418	Merrimack Valley	Amesbury	AMESBURY- RECONSTRUCTION OF ELM STREET	4	STP	\$ 7,223,053	\$ 5,778,442	\$ 1,444,611	a) Construction; b) \$11,178,124 = \$3,955,071 STP 2019 + \$7,223,053 STP 2020; c) AC Year 2 of 2 = \$7,223,053; d) TEC = 5.98 out of 18;
	Bicycles and Pedestrians	608027	Merrimack Valley	Haverhill	HAVERHILL- BRADFORD RAIL TRAIL EXTENSION, FROM ROUTE 125 TO RAILROAD STREET	4	STP	\$ 1,062,149	\$ 849,719	\$ 212,430	a) Construction; b) \$1,131,000 (inflated 4% from 2019 cost) = \$1,062,149 STP + \$68,851 TAP; d) TEC = 7.15 out of 18;
	Bicycles and Pedestrians	608027	Merrimack Valley	Haverhill	HAVERHILL- BRADFORD RAIL TRAIL EXTENSION, FROM ROUTE 125 TO RAILROAD STREET	4	TAP	\$ 68,851	\$ 55,081	\$ 13,770	a) Construction; b) \$1,131,000 (inflated 4% from 2019 cost) = \$1,062,149 STP + \$68,851 TAP; d) TEC = 7.15 out of 18;
			Merrimack Valley						\$ -	\$ -	
Regionally Prioritized Projects subtotal ►								\$ 8,354,053	\$ 6,683,242	\$ 1,670,811	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; **Column C)** Enter ID from ProjectInfo; **Column E)** Choose Municipality Name from dropdown list; **Column H)** Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; **Column I)** Enter the total amount of funds being programmed in this fiscal year and for each funding source; **Column J)** Federal funds autocalculate. Please verify the amount and only change if needed for flex. **Column K)** Non-federal funds autocalculate. Please verify the split/match - if matching an FTA flex, coordinate with Rail & Transit Division before programming; **Column L)** Enter Additional Information as described - please do not use any other format.

Total Regional Federal Aid Funds Programmed ►	\$ 8,354,053	\$ 10,564,815	◀Total	\$ 2,210,762	Target Funds Available
STP programmed ►	\$ 8,285,202	\$ 6,628,162	◀ STP		
HSIP programmed ►	\$ -	\$ -	◀ HSIP		
CMAQ programmed ►	\$ -	\$ -	◀ CMAQ		
TAP programmed ►	\$ 68,851	\$ 55,081	◀ TAP		

► Section 1B / Earmark or Discretionary Grant Funded Projects

► Other Federal Aid

		Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -		
		Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -		
Other Federal Aid subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

► Section 2A / State Prioritized Reliability Projects

► Bridge Program / Inspections

	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

► Bridge Program / Off-System

	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	

2020 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
	Bridge Program	605306	Merrimack Valley	Haverhill	HAVERRHILL - BRIDGE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP-On	\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	AC Year 3 of 6, Total Cost \$118,786,388
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (NHS) subtotal ▶								\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	

2020 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i></small>
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
Non-Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Roadway Improvements											
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Safety Improvements											
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ►								\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 2B / State Prioritized Modernization Projects											
► ADA Retrofits											
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ►								\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ►								\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Intelligent Transportation Systems											

2020 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Reconstruction											
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2C / State Prioritized Expansion Projects											
► Bicycles and Pedestrians											
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
Bicycles and Pedestrians subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Capacity											
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 3 / Planning / Adjustments / Pass-throughs											
► Planning / Adjustments / Pass-throughs											
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program I, (SPR I), Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program II, (SPR II), Research	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Recreational Trails	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

2020 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</i>
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▶ Section 4 / Non-Federally Aided Projects

▶ Non-Federally Aided Projects

	Non Federal Aid		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal▶								\$ -		\$ -	◀100% Non-Federal

2020 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ▶	\$ 28,151,784	\$ -	\$ 28,151,784	◀ Total Spending in Region
Federal Funds ▶	\$ 22,521,427		\$ 22,521,427	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 5,630,357	\$ -	\$ 5,630,357	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
	Bicycles and Pedestrians	608298	Merrimack Valley	Groveland	GROVELAND- COMMUNITY TRAIL FROM MAIN STREET TO KING STREET	4	STP	\$ 1,633,129	\$ 1,306,503	\$ 326,626	a) Construction; b) \$2,365,973 (inflated 8% from 2019 cost) = \$1,633,129 STP + \$408,848 CMAQ + \$323,996 TAP; d) TEC = 4.87 out of 18;
	Bicycles and Pedestrians	608298	Merrimack Valley	Groveland	GROVELAND- COMMUNITY TRAIL FROM MAIN STREET TO KING STREET	4	CMAQ	\$ 408,848	\$ 327,078	\$ 81,770	a) Construction; b) \$2,365,973 (inflated 8% from 2019 cost) = \$1,633,129 STP + \$408,848 CMAQ + \$323,996 TAP; d) TEC = 4.87 out of 18;
	Bicycles and Pedestrians	608298	Merrimack Valley	Groveland	GROVELAND- COMMUNITY TRAIL FROM MAIN STREET TO KING STREET	4	TAP	\$ 323,996	\$ 259,197	\$ 64,799	a) Construction; b) \$2,365,973 (inflated 8% from 2019 cost) = \$1,633,129 STP + \$408,848 CMAQ + \$323,996 TAP; d) TEC = 4.87 out of 18;
	Intersection Improvements	608761	Merrimack Valley	Haverhill	HAVERRHILL - INTERSECTION RECONSTRUCTION ON ROUTE 108 (NEWTON ROAD) AT ROUTE 110 (KENOZA AVENUE AND AMESBURY ROAD)	4	STP	\$ 2,099,520	\$ 1,679,616	\$ 419,904	a) Construction; b) \$2,099,520 (inflated 8% from 2019 cost); d) TEC = 8.37 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	STP	\$ 4,411,814	\$ 3,529,451	\$ 882,363	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 1 of 2 = \$6,313,159; d) TEC = 11.17 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	CMAQ	\$ 1,107,389	\$ 885,911	\$ 221,478	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 1 of 2 = \$6,313,159; d) TEC = 11.17 out of 18;

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	HSIP	\$ 442,956	\$ 398,660	\$ 44,296	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 1 of 2 = \$6,313,159; d) TEC = 11.17 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	TAP	\$ 351,000	\$ 280,800	\$ 70,200	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 1 of 2 = \$6,313,159; d) TEC = 11.17 out of 18;
			Merrimack Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ▶								\$ 10,778,652	\$ 8,667,217	\$ 2,111,435	◀ 80% Federal + 20% Non-Federal

▶ Section 1A / Fiscal Constraint Analysis

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; Column C) Enter ID from ProjectInfo; Column E) Choose Municipality Name from dropdown list; Column H) Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; Column I) Enter the total amount of funds being programmed in this fiscal year and for each funding source; Column J) Federal funds autocalculates. Please verify the amount and only change if needed for flex. Column K) Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex, coordinate with Rail & Transit Division before programming; Column L) Enter Additional Information as described - please do not use any other format.

Total Regional Federal Aid Funds Programmed ▶	\$ 10,778,652	\$ 10,778,652	◀ Total	\$ -	Target Funds Available
STP programmed ▶	\$ 8,144,463	\$ 6,515,570	◀ STP		
HSIP programmed ▶	\$ 442,956	\$ 398,660	◀ HSIP		
CMAQ programmed ▶	\$ 1,516,237	\$ 1,212,990	◀ CMAQ		
TAP programmed ▶	\$ 674,996	\$ 539,997	◀ TAP		

▶ Section 1B / Earmark or Discretionary Grant Funded Projects

▶ Other Federal Aid

		Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -		
		Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -		
Other Federal Aid subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
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▶ Section 2A / State Prioritized Reliability Projects

▶ Bridge Program / Inspections

	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Bridge Program / Off-System

	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

▶ Bridge Program / On-System (NHS)

	Bridge Program	605306	Merrimack Valley	Haverhill	HAVERHILL - BRIDGE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP-On	\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	AC Year 4 of 6, Total Cost \$118,786,388
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (NHS) subtotal ▶								\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	◀ Funding Split Varies by Funding Source

▶ Bridge Program / On-System (Non-NHS)

	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

▶ Bridge Program / Systematic Maintenance

	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
Bridge Program / Systematic Maintenance subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Interstate Pavement											
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Non-Interstate Pavement											
	Non-Interstate Pavement	608494	Merrimack Valley	Multiple	NEWBURY- NEWBURYPORT- SALISBURY- RESURFACING AND RELATED WORK ON ROUTE 1	4	NHPP	\$ 10,271,664	\$ 8,217,331	\$ 2,054,333	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
Non-Interstate Pavement subtotal ▶								\$ 10,271,664	\$ 8,217,331	\$ 2,054,333	◀ 80% Federal + 20% Non-Federal
▶ Roadway Improvements											
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Safety Improvements											
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2B / State Prioritized Modernization Projects											
► ADA Retrofits											
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Intelligent Transportation Systems											
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Roadway Reconstruction											
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2C / State Prioritized Expansion Projects											
▶ Bicycles and Pedestrians											
	Bicycles and Pedestrians	607541	Merrimack Valley	Multiple	GEORGETOWN- BOXFORD- BORDER TO BOSTON TRAIL, FROM GEORGETOWN ROAD TO WEST MAIN STREET (ROUTE 97)	4	CMAQ	\$ 1,874,028	\$ 1,499,222	\$ 374,806	Construction / PSAC score 31
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
Bicycles and Pedestrians subtotal ▶								\$ 1,874,028	\$ 1,499,222	\$ 374,806	◀ 80% Federal + 20% Non-Federal
▶ Capacity											

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 3 / Planning / Adjustments / Pass-throughs

▶ Planning / Adjustments / Pass-throughs

			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program I, (SPR I), Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program II, (SPR II), Research	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Recreational Trails	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 4 / Non-Federally Aided Projects

▶ Non-Federally Aided Projects

	Non Federal Aid		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ▶								\$ -		\$ -	◀ 100% Non-Federal

2021 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ▶	\$ 42,722,075	\$ -	\$ 42,722,075	◀ Total Spending in Region
Federal Funds ▶	\$ 34,221,956		\$ 34,221,956	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 8,500,119	\$ -	\$ 8,500,119	◀ Total Non-Federal Spending in Region

2021 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
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2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
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► Section 1A / Regionally Prioritized Projects

► Regionally Prioritized Projects

	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	STP	\$ 8,602,213	\$ 6,881,770	\$ 1,720,443	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 2 of 2 = \$10,503,558; d) TEC = 11.17 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	CMAQ	\$ 1,107,389	\$ 885,911	\$ 221,478	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 2 of 2 = \$10,503,558; d) TEC = 11.17 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	HSIP	\$ 442,956	\$ 398,660	\$ 44,296	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 2 of 2 = \$10,503,558; d) TEC = 11.17 out of 18;
	Roadway Reconstruction	608095	Merrimack Valley	North Andover	NORTH ANDOVER- CORRIDOR IMPROVEMENTS ON ROUTE 114, BETWEEN ROUTE 125 (ANDOVER STREET) & STOP & SHOP DRIVEWAY	4	TAP	\$ 351,000	\$ 280,800	\$ 70,200	a) Construction; b) \$16,816,717 (inflated 8% from 2019 cost) = FFY 2021 (\$4,411,814 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP) + FFY 2022 (\$8,602,213 STP + \$1,107,389 CMAQ + \$442,956 HSIP + \$351,000 TAP); c) AC Year 2 of 2 = \$10,503,558; d) TEC = 11.17 out of 18;
Regionally Prioritized Projects subtotal ►								\$ 10,503,558	\$ 8,447,142	\$ 2,056,416	◄ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Regional Federal Aid Funds Programmed ► \$ 10,503,558 \$ 10,998,132 ◄Total \$ 494,574 Target Funds Available

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
<p>Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; Column C) Enter ID from ProjectInfo; Column E) Choose Municipality Name from dropdown list; Column H) Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; Column I) Enter the total amount of funds being programmed in this fiscal year and for each funding source; Column J) Federal funds autocalculates. Please verify the amount and only change if needed for flex. Column K) Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex, coordinate with Rail & Transit Division before programming; Column L) Enter Additional Information as described - please do not use any other format.</p>								STP programmed ▶	\$ 8,602,213	\$ 6,881,770	◀ STP
								HSIP programmed ▶	\$ 442,956	\$ 398,660	◀ HSIP
								CMAQ programmed ▶	\$ 1,107,389	\$ 885,911	◀ CMAQ
								TAP programmed ▶	\$ 351,000	\$ 280,800	◀ TAP

▶ Section 1B / Earmark or Discretionary Grant Funded Projects

▶ Other Federal Aid											
			Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
			Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 2A / State Prioritized Reliability Projects

▶ Bridge Program / Inspections											
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Bridge Program / Off-System											
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

▶ Bridge Program / On-System (NHS)

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Bridge Program	605306	Merrimack Valley	Haverhill	HAVERRHILL - BRIDGE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP-On	\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	AC Year 5 of 6, Total Cost \$118,786,388
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (NHS) subtotal ▶								\$ 19,797,731	\$ 15,838,185	\$ 3,959,546	◀ Funding Split Varies by Funding Source
▶ Bridge Program / On-System (Non-NHS)											
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Bridge Program / Systematic Maintenance											
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Interstate Pavement											
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Non-Interstate Pavement											
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
Non-Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Roadway Improvements											
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Safety Improvements											
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2B / State Prioritized Modernization Projects											

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
► ADA Retrofits											
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Intelligent Transportation Systems											
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Reconstruction											
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2C / State Prioritized Expansion Projects											
▶ Bicycles and Pedestrians											
	Bicycles and Pedestrians	607542	Merrimack Valley	Multiple	GEORGETOWN- NEWBURY- BORDER TO BOSTON TRAIL (NORTHERN GEORGETOWN TO BYFIELD SECTION)	4	CMAQ	\$ 4,341,120	\$ 3,472,896	\$ 868,224	Construction / PSAC score 28.5
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
Bicycles and Pedestrians subtotal ▶								\$ 4,341,120	\$ 3,472,896	\$ 868,224	◀ 80% Federal + 20% Non-Federal
▶ Capacity											
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 3 / Planning / Adjustments / Pass-throughs											
▶ Planning / Adjustments / Pass-throughs											
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program I, (SPR I), Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program II, (SPR II), Research	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	

2022 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Recreational Trails	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 4 / Non-Federally Aided Projects

▶ Non-Federally Aided Projects

	Non Federal Aid		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ▶								\$ -		\$ -	◀ 100% Non-Federal

2022 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ▶	\$ 34,642,409	\$ -	\$ 34,642,409	◀ Total Spending in Region
Federal Funds ▶	\$ 27,758,223		\$ 27,758,223	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 6,884,186	\$ -	\$ 6,884,186	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
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▶ Section 1A / Regionally Prioritized Projects

▶ Regionally Prioritized Projects

	Roadway Reconstruction	602202	Merrimack Valley	Salisbury	SALISBURY - RECONSTRUCTION OF ROUTE 1 (LAFAYETTE ROAD)	4	STP	\$ 7,343,750	\$ 5,875,000	\$ 1,468,750	a) Construction; b) \$7,343,750 (inflated 16% from 2019 cost); d) TEC = 8.1 out of 18;
	Roadway Reconstruction	608788	Merrimack Valley	Haverhill	HAVERHILL - ROADWAY RECONSTRUCTION ON NORTH AVENUE, FROM MAIN STREET (ROUTE 125) TO PLAISTOW NH	4	STP	\$ 3,894,590	\$ 3,115,672	\$ 778,918	a) Construction; b) \$14,167,080 (inflated 16% from 2019 cost) = \$3,894,590 STP 2023 + \$10,272,490 STP 2024; c) AC Year 1 of 2 = \$3,894,590; d) TEC = 8.00 out of 18;
			Merrimack Valley					\$ -	\$ -	\$ -	
			Merrimack Valley					\$ -	\$ -	\$ -	
			Merrimack Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ▶								\$ 11,238,340	\$ 8,990,672	\$ 2,247,668	◀ 80% Federal + 20% Non-Federal

▶ Section 1A / Fiscal Constraint Analysis

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; Column C) Enter ID from ProjectInfo; Column E) Choose Municipality Name from dropdown list; Column H) Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; Column I) Enter the total amount of funds being programmed in this fiscal year and for each funding source; Column J) Federal funds autocalculates. Please verify the amount and only change if needed for flex; Column K) Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex, coordinate with Rail & Transit Division before programming; Column L) Enter Additional Information as described - please do not use any other format.

Total Regional Federal Aid Funds Programmed ▶	\$ 11,238,340	\$ 11,238,340	◀ Total	\$ -	Target Funds Available
STP programmed ▶	\$ 11,238,340	\$ 8,990,672	◀ STP		
HSIP programmed ▶	\$ -	\$ -	◀ HSIP		
CMAQ programmed ▶	\$ -	\$ -	◀ CMAQ		
TAP programmed ▶	\$ -	\$ -	◀ TAP		

▶ Section 1B / Earmark or Discretionary Grant Funded Projects

▶ Other Federal Aid

			Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
			Merrimack Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 2A / State Prioritized Reliability Projects

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
► Bridge Program / Inspections											
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System											
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
	Bridge Program	605306	Merrimack Valley	Haverhill	HAVERRHILL - BRIDGE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP-On	\$ 15,892,036	\$ 12,713,629	\$ 3,178,407	AC Year 6 of 6, Total Cost \$118,786,388
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (NHS) subtotal ►								\$ 15,892,036	\$ 12,713,629	\$ 3,178,407	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
	Bridge Program		Merrimack Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
Bridge Program / Systematic Maintenance subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
	Interstate Pavement		Merrimack Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
	Non-Interstate Pavement		Merrimack Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -	
Non-Interstate Pavement subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Improvements											
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
	Roadway Improvements		Merrimack Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Safety Improvements											
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
	Safety Improvements		Merrimack Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2B / State Prioritized Modernization Projects											
▶ ADA Retrofits											
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
	ADA Retrofits		Merrimack Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Intersection Improvements											
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Intersection Improvements		Merrimack Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Intelligent Transportation Systems											
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
	Intelligent Transportation Systems		Merrimack Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ▶								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Roadway Reconstruction											
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
	Roadway Reconstruction		Merrimack Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2C / State Prioritized Expansion Projects											
▶ Bicycles and Pedestrians											
	Bicycles and Pedestrians	608930	Merrimack Valley	Multiple	LAWRENCE- LAWRENCE MANCHESTER RAIL CORRIDOR (LMRC) RAIL TRAIL	4	CMAQ	\$ 17,278,635	\$ 13,822,908	\$ 3,455,727	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
	Bicycles and Pedestrians		Merrimack Valley		Bicycles and Pedestrians			\$ -	\$ -	\$ -	
Bicycles and Pedestrians subtotal ▶								\$ 17,278,635	\$ 13,822,908	\$ 3,455,727	◀ 80% Federal + 20% Non-Federal
▶ Capacity											
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <small><i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information</small>
	Capacity		Merrimack Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 3 / Planning / Adjustments / Pass-throughs

▶ Planning / Adjustments / Pass-throughs

			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Award adjustments, change orders, etc.	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Metropolitan Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program I, (SPR I), Planning	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		State Planning and Research Work Program II, (SPR II), Research	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Railroad Crossings	Multiple		\$ -	\$ -	\$ -	
			Merrimack Valley		Recreational Trails	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ▶								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 4 / Non-Federally Aided Projects

▶ Non-Federally Aided Projects

	Non Federal Aid		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Merrimack Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ▶								\$ -		\$ -	◀ 100% Non-Federal

2023 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ▶	\$ 44,409,011	\$ -	\$ 44,409,011	◀ Total Spending in Region
Federal Funds ▶	\$ 35,527,209		\$ 35,527,209	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 8,881,802	\$ -	\$ 8,881,802	◀ Total Non-Federal Spending in Region

2023 Merrimack Valley Region Transportation Improvement Program

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable:</i> a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction status; d) MPO project score; e) name of entity receiving a transfer; f) name of entity paying the non-state non-federal match; g) earmark details; h) TAP project proponent; i) other information
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701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

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Part B. Project Listings (Cont.)
Transit Projects



**TIP 2019 – 2023
2019**

5307									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006769	MVRTA		Preventative Maintenance Expense		\$2,600,075	\$650,020	\$0	\$0	\$3,250,095
RTD0006770	MVRTA		ADA Operating Expense		\$1,165,135	\$291,285	\$0	\$0	\$1,456,420
RTD0006771	MVRTA	442400	SHORT RANGE TRANSIT PLANNING		\$80,000	\$0	\$0	\$20,000	\$100,000
RTD0006772	MVRTA	300900	OPERATING ASSISTANCE		\$390,125	\$390,125	\$0	\$0	\$780,250
RTD0006785	MVRTA	114211	Replace 1 Model Yr 2013 Support Vehicle		\$36,165	\$9,040	\$0	\$0	\$45,205
RTD0007126	MVRTA	114406	SGR Refurbish 4 vehicle lifts		\$320,000	\$80,000	\$0	\$0	\$400,000
RTD0007127	MVRTA	114105	SGR Riverbank stabilization Design/Permitting		\$188,025	\$47,010	\$0	\$0	\$235,035
				Subtotal	\$4,779,525	\$1,467,480	\$0	\$20,000	\$6,267,005
5310									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0007485	MVRTA	435001	Travel Training Video		\$24,000	\$6,000	\$0	\$0	\$30,000
RTD0007429		300901	UP TO 50% FEDERAL SHARE		\$3,000	\$0	\$0	\$3,000	\$6,000
				Subtotal	\$27,000	\$6,000	\$0	\$3,000	\$36,000
				Federal Aid Totals	\$4,806,525	\$1,473,480	\$0	\$23,000	\$6,303,005



TIP 2019 – 2023 2019 (Continued)

Other Non-Federal									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006786	MVRTA	113303	Newburyport Intermodal Transit Facility Year 2		\$0	\$3,151,756	\$0	\$0	\$3,151,756
RTD0006792	MVRTA	111202	Replacement Buses – cleaner fuel (CMAQ Match on HWY TIP)		\$0	\$139,708	\$0	\$0	\$139,708
	MVRTA		MVRTA Bike Racks for Buses and for Buckley, McGovern and Costello Transportation Centers (STP Match on HWY TIP) (#MV0003)			\$22,000			\$22,000
				Non-Federal Aid Subtotal	\$0	\$3,313,464	\$0	\$0	\$3,313,464
				Total	\$4,806,525	\$4,786,944	\$0	\$23,000	\$9,616,469



**TIP 2019 – 2023
2020**

5307									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006773	MVRTA	117A00	Preventive Maintenance		\$2,678,075	\$669,520	\$0	\$0	\$3,347,595
RTD0006774	MVRTA	117C00	Non-Fixed Route ADA para serv		\$1,200,090	\$300,020	\$0	\$0	\$1,500,110
RTD0006775	MVRTA	442400	SHORT RANGE TRANSIT PLANNING	2019 - \$80,000	\$80,000	\$0	\$0	\$20,000	\$100,000
RTD0006776	MVRTA	300900	OPERATING ASSISTANCE		\$462,475	\$462,475	\$0	\$0	\$924,950
RTD0006781	MVRTA	111202	Replace 3 Model Yr 2007 buses delivery 2020	2019 - \$1,101,720	\$1,101,720	\$275,430	\$0	\$0	\$1,377,150
RTD0007129	MVRTA	114305	SGR Riverbank stabilization Construction		\$1,400,265	\$350,065	\$0	\$0	\$1,750,330
RTD0007130	MVRTA	114211	SGR Replace 1 model yr 2013 supervisory vehicle		\$37,225	\$9,305	\$0	\$0	\$46,530
				Total	\$6,959,850	\$2,066,815	\$0	\$20,000	\$9,046,665



**TIP 2019 – 2023
2021**

5307									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006777	MVRTA	117A00	Preventive Maintenance		\$2,708,415	\$677,105	\$0	\$0	\$3,385,520
RTD0006778	MVRTA	117C00	Non-Fixed Route ADA para serv		\$1,186,090	\$296,520	\$0	\$0	\$1,482,610
RTD0006779	MVRTA	442400	SHORT RANGE TRANSIT PLANNING		\$80,000	\$0	\$0	\$20,000	\$100,000
RTD0006783	MVRTA	300901	OPERATING ASSISTANCE		\$458,725	\$458,725	\$0	\$0	\$917,450
RTD0006784	MVRTA	111215	Replace 16 Model Yr 2015 vans with new		\$948,250	\$237,060	\$0	\$0	\$1,185,310
RTD0007131	MVRTA	114211	SGR Replace 1 model yr 2016 supervisory vehicle		\$38,320	\$9,580	\$0	\$0	\$47,900
				Total	\$5,419,800	\$1,678,990	\$0	\$20,000	\$7,118,790



**TIP 2019 – 2023
2022**

5307									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006787	MVRTA	117A00	Preventive Maintenance		\$2,791,165	\$697,790	\$0	\$0	\$3,488,955
RTD0006788	MVRTA	117C00	Non-Fixed Route ADA para serv		\$1,223,170	\$305,790	\$0	\$0	\$1,528,960
RTD0006789	MVRTA	442400	SHORT RANGE TRANSIT PLANNING		\$80,000	\$0	\$0	\$20,000	\$100,000
RTD0006790	MVRTA	300901	OPERATING ASSISTANCE		\$473,985	\$473,985	\$0	\$0	\$947,970
RTD0006791	MVRTA	111202	Replace Model Yr 2009 buses delivery 2022 7 of 9		\$2,647,650	\$661,915	\$0	\$0	\$3,309,565
				Total	\$7,215,970	\$2,139,480	\$0	\$20,000	\$9,375,450



TIP 2019 – 2023 2023

5307									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0007132	MVRTA	117A00	Preventive Maintenance		\$2,771,250	\$692,810	\$0	\$0	\$3,464,060
RTD0007133	MVRTA	300901	OPERATING ASSISTANCE		\$384,555	\$384,555	\$0	\$0	\$769,110
RTD0007134	MVRTA	117C00	Non-Fixed Route ADA para serv		\$1,156,215	\$289,055	\$0	\$0	\$1,445,270
RTD0007135	MVRTA	111202	Replace 2 Model Yr 2009 buses de- livery 2023		\$779,130	\$194,780	\$0	\$0	\$973,910
RTD0007136	MVRTA	111215	Replace 6 Model Yr 2017 vans deliv- ery 2023	2022 - \$377,010	\$377,010	\$94,250	\$0	\$0	\$471,260
RTD0007142	MVRTA	442400	SHORT RANGE TRANSIT PLANNING		\$80,000	\$0	\$0	\$20,000	\$100,000
				Subtotal	\$5,548,160	\$1,655,450	\$0	\$20,000	\$7,223,610

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Summary of Highway Project Listings by Town

Summary of Highway Projects by Town (2019 to 2023 Regional Target Funds)

Year (s) Programmed	City / Town	Project Description	Total Cost Programmed
2019-2020	Amesbury	Amesbury - Reconstruction of Elm Street (# 602418)	\$11,178,124
2021	Groveland	Groveland - Groveland Community Trail, from Main Street to King Street (# 608298)	\$2,365,973
2020	Haverhill	Haverhill – Bradford Rail Trail Extension from Route 125 to Railroad Street (# 608027)	\$1,131,000
2021	Haverhill	Haverhill – Intersection Improvements at Rt 110 / Rt 108 (# 608761)	\$2,099,520
2023	Haverhill	Haverhill – Roadway Reconstruction on North Avenue, from Main Street (Route 125) to Plaistow NH	\$3,894,590**
2019	MVRTA	Flex to FTA for MVRTA new bus upgrade to cleaner fuel buses (# MV0001)	\$698,541
2019	MVRTA	Flex to FTA for MVRTA Bike Racks for Buses and for Buckley, McGovern and Costello Transportation Centers	\$110,000
2019	North Andover	North Andover - Intersection & Signal Improvements at Route 125 & Massachusetts Avenue (# 606159)*	\$5,421,268
2021-2023	North Andover	North Andover - Corridor Improvements on Route 114, between Route 125 (Andover Street) & Stop & Shop Drive-way (# 608095)	\$16,816,717
2023	Salisbury	Salisbury – Reconstruction of Route 1 (Lafayette Road)	\$7,343,750

*Route 125 at Mass. Ave. in North Andover is also funded with \$25,394 of Earmark funding that is not part of the designated “Regional Target” funding.

**Haverhill – North Avenue will be AC’d with funding in 2023 and 2024, total project cost = \$14,167,080.

**Summary of Programmed Highway Funds by Town
(2019 to 2023 Regional Target Funds)**

Project Description	Total Cost Programmed
Amesbury Total	\$11,178,124
Groveland Total	\$2,365,973
Haverhill Total	\$7,125,110
MVRTA Total	\$808,541
North Andover Total	\$22,237,985
Salisbury Total	\$7,343,750
Regional Total	\$51,059,483

**Summary of Highway Projects by Town
(2019 to 2023 Statewide and Regional Target Funds)**

Year (s) Programmed	City / Town	Project Description	Total Cost Programmed
2019-2020	Amesbury	Amesbury - Reconstruction of Elm Street (# 602418)	\$11,178,124
2021	Georgetown / Boxford	Georgetown - Boxford Border to Boston Trail, from Georgetown Road to West Main Street (Route 97) (# 607541)	\$1,874,028
2022	Georgetown / Newbury	Georgetown - Newbury Border to Boston Trail, (Northern Georgetown to Byfield Section) (# 607542)	\$4,341,120
2021	Groveland	Groveland - Groveland Community Trail, from Main Street to King Street (# 608298)	\$2,365,973
2020	Haverhill	Haverhill – Bradford Rail Trail Extension from Route 125 to Railroad Street (# 608027)	\$1,131,000
2019-2023	Haverhill	Haverhill - Bridge Replacement, H-12-039, I-495 (NB & SB) over Merrimack River (# 605306)	\$98,988,655
2021	Haverhill	Haverhill – Intersection Improvements at Rt 110 / Rt 108 (# 608761)	\$2,099,520
2023	Haverhill	Haverhill – Roadway Reconstruction on North Avenue, from Main Street (Route 125) to Plaistow NH	\$3,894,590**

**Haverhill – North Avenue will be AC'd with funding in 2023 and 2024, total project cost = \$14,167,080.

**Summary of Highway Projects by Town
(2019 to 2023 Statewide and Target Funds) (Cont.)**

Year (s) Programmed	City / Town	Project Description	Total Cost Programmed
2023	Lawrence	Lawrence – Lawrence Manchester Rail Corridor (LMRC) Rail Trail (# 608930)	\$17,278,635
2019	MVRTA	Flex to FTA for MVRTA new bus upgrade to cleaner fuel buses (# MV0001)	\$698,541
2019	MVRTA	Flex to FTA for MVRTA Bike Racks for Buses and for Buckley, McGovern and Costello Transportation Centers	\$110,000
2021	Newbury - Newburyport - Salisbury	Newbury - Newburyport - Salisbury - Resurfacing and related work on Route 1 (# 608494)	\$10,271,664
2019	Newburyport	Newburyport - Improvements at Nock Middle School & Molin Upper Elementary School (SRTS) (# 608792)	\$1,866,615
2019	North Andover	North Andover - Intersection & Signal Improvements at Route 125 & Massachusetts Avenue (# 606159)	\$5,446,662
2021-2022*	North Andover	North Andover - Corridor Improvements on Route 114, between Route 125 (Andover Street) & Stop & Shop Drive-way (# 608095)	\$16,816,717
2023	Salisbury	Salisbury – Reconstruction of Route 1 (Lafayette Road)	\$7,343,750

**Summary of Programmed Highway Funds by Town
(2019 to 2023 Statewide and Regional Target Funds)**

Project Description	Total Cost Programmed
Amesbury Total	\$11,178,124
Boxford Total	\$937,014
Georgetown Total	\$3,107,574
Groveland Total	\$2,365,973
Haverhill Total	\$106,113,765
Lawrence Total	\$17,278,635
MVRTA Total	\$808,541
Newbury Total	\$5,594,448
Newburyport Total	\$5,290,503
North Andover Total	\$22,263,379
Salisbury Total	\$10,767,638
Regional Total	\$185,705,594

Part C. Federal Requirements

Part C.1. Highway Program Financial Plan

Funding levels for Federal Fiscal Years 2019-2023 have been developed cooperatively between the State and the MPOs as part of the TIP development process. The following five tables depict the resulting financial plan for each of the five fiscal years. FHWA provides the state with the expected Federal Funding available for each year of the TIP this estimated Title 23 Base Obligation Authority is listed first to which is added a “Planned redistribution request” estimated to be \$50,000,000 each year of the TIP. (Toward the end of the FFY any state that has not spent their Federal Obligation Authority returns that authority, and the Federal government redistributes those funds to the other states.) The Total estimated Federal Funds available to Massachusetts is estimated to be between approximately 661 million dollars and 726 million dollars for each of FFYs 2019 to 2023. The State then subtracts annual debt service payments for the Accelerated Bridge Program (ABP) Grant Application Notes (GANs) which range from 66 million dollars to almost 94 million dollars for each year over the five years of the TIP. The State generally provides the 20% match required for the Federal funds resulting in estimated funds ranging from approximately 734 million dollars to approximately 782 million dollars available Statewide for highway program funding for each of the five years of the TIP.

MassDOT Highway Division, Office of Transportation Planning (OTP), and the Federal Aid Programming and Reimbursement Office (FAPRO) then decide the amount of funding needed for Statewide items such as Interstate Maintenance, district-wide contracts, planning and transportation demand management. Those funds are subtracted from the total and the remaining is available for regional priorities, which ranges from \$229,930,000 in FFY 2019 to \$253,709,792 in FFY 2023.

This funding is then allocated to MPOs based upon the existing Massachusetts Association of Regional Planning Agencies (MARPA) TIP target distribution formula. This “MARPA” formula is based mainly on each MPO’s road mileage and population. The MVMPO’s share is 4.4296%, resulting in the funding available for regional priorities to be \$10,184,880 in FFY 2019; \$10,564,815 in FFY 2020; \$10,778,652 in FFY 2021; \$10,998,132 in FFY 2022 and \$11,238,340 in FFY 2023.

In FFY 2017 MassDOT ended funding for the regional major infrastructure program after the I-91 Viaduct in Springfield project had been completed. These funds will be reallocated to the Regional Target program for prioritization by MPOs across the state.

Inflation increases project costs and therefore project costs have been increased 4% per year.

**FFY 2019-2023 STIP
2019 BUDGET**

	Obligation authority (federal aid only)	Matching funds	FFY 2019 (Proposed) (federal aid + match)
Base obligation authority	\$ 511,580,544		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 561,580,544		
ABP GANS Repayment	\$ (56,015,000)		
Total non-earmarked funding available	\$ 505,565,544	\$ 138,437,429	\$ 644,002,973
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 21,545,935	\$ 5,411,484	\$ 27,067,419
Metropolitan planning	\$ 8,570,263	\$ 2,157,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,633,371
Freight Plan flex to Rail and Transit	\$ 2,021,285	\$ 505,321	\$ 2,626,606
Recreational trails	\$ 2,519,509	\$ 629,877	\$ 3,149,386
Railroad grade crossings	\$ 3,800,000	\$ 422,222	\$ 4,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	<i>\$ 56,343,888</i>	<i>\$ 13,908,145</i>	<i>\$ 70,252,033</i>
Funding for regional priorities	\$ 505,221,656	\$ 124,529,284	\$ 629,750,940
regional share %	MPO	Total federal aid	Matching funds
3.6606%	Berkshire	\$ 5,583,267	\$ 1,501,423
42.9671%	Boston	\$ 79,465,073	\$ 19,329,188
4.6861%	Cape Cod	\$ 8,479,867	\$ 2,062,749
8.6901%	Central Mass	\$ 16,071,819	\$ 3,909,400
2.6397%	Franklin	\$ 4,697,023	\$ 1,142,615
0.3100%	Martha's Vineyard	\$ 573,326	\$ 139,385
4.4296%	Merrimaak Valley	\$ 8,192,279	\$ 1,992,601
4.4698%	Montachusett	\$ 8,247,763	\$ 2,006,090
0.2200%	Nantucket	\$ 406,877	\$ 98,919
3.9099%	Northern Middlesex	\$ 7,230,571	\$ 1,758,793
4.6696%	Old Colony	\$ 8,432,522	\$ 2,051,238
10.8099%	Pioneer Valley	\$ 19,992,261	\$ 4,862,985
0.9601%	Southeastern Mass	\$ 16,571,167	\$ 4,030,800
<i>Total funding of regional priorities</i>	<i>\$ 184,844,000</i>	<i>\$ 44,888,186</i>	<i>\$ 229,932,186</i>
Highway Division programs	\$ 366,377,866	\$ 80,143,100	\$ 446,520,966
Reliability programs	\$ 277,867,955	\$ 82,379,787	\$ 360,247,742
Bridge program	\$ 147,807,955	\$ 36,951,989	\$ 184,759,944
	Inspections	\$ -	\$ -
	Systematic maintenance	\$ 8,000,000	\$ 2,000,000
	On-system NHS (minimum)	\$ 98,000,000	\$ 24,000,000
	On-System Non-NHS	\$ 15,307,955	\$ 3,826,989
	Off-system	\$ 28,600,000	\$ 7,126,000
Interstate pavement program	\$ 27,650,000	\$ 3,072,222	\$ 30,722,222
Non-interstate DOT pavement program	\$ 69,200,000	\$ 17,300,000	\$ 86,500,000
Roadway improvements program	\$ 2,000,000	\$ 500,000	\$ 2,500,000
Safety improvements program	\$ 31,000,000	\$ 4,555,556	\$ 35,655,666
Modernization programs	\$ 41,400,000	\$ 8,883,333	\$ 50,283,333
ADA retrofits program	\$ 2,400,000	\$ 600,000	\$ 3,000,000
Intersection Improvements program	\$ 19,000,000	\$ 3,083,333	\$ 22,083,333
Intelligent Transportation Systems program	\$ 11,000,000	\$ 2,750,000	\$ 13,750,000
Roadway reconstruction program	\$ 9,000,000	\$ 2,250,000	\$ 11,250,000
Expansion programs	\$ 36,320,000	\$ 9,080,000	\$ 45,400,000
Bicycles and pedestrians program	\$ 36,320,000	\$ 9,080,000	\$ 45,400,000
Capacity program	\$ -	\$ -	\$ -

**FFY 2019-2023 STIP
2020 BUDGET**

	Obligation authority (federal/aid only)	Matching funds	FFY 2020 (Proposed) (federal/aid + match)	
Base obligation authority	\$ 626,330,019			
Planned redistribution request	\$ 50,000,000			
Total Estimated Funding Available	\$ 676,330,019			
ABP GANS Repayment	\$ (81,570,000)			
Total non-earmarked funding available	\$ 694,760,019	\$ 139,026,281	\$ 733,786,300	
Planning / Adjustments / Pass-throughs				
Award adjustments, change orders, etc.	\$ 38,175,176	\$ 9,543,794	\$ 47,718,989	
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829	
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371	
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340	
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411	
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222	
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000	
<i>subtotal of planning / adjustments / pass-throughs</i>	<i>\$ 88,984,737</i>	<i>\$ 18,983,498</i>	<i>\$ 86,928,143</i>	
Funding for regional priorities				
	regional share %	MPO	Total federal aid	
			Matching funds	
			Total funding (proposed)	
3.660%	Berkshire	\$ 6,791,857	\$ 1,697,964	\$ 8,489,822
42.967%	Boston	\$ 81,982,925	\$ 20,495,731	\$ 102,478,666
4.665%	Cape Cod	\$ 8,748,552	\$ 2,187,138	\$ 10,935,690
6.690%	Central Mass	\$ 16,581,054	\$ 4,145,264	\$ 20,726,318
2.639%	Franklin	\$ 4,845,848	\$ 1,211,462	\$ 6,057,310
0.310%	Martha's Vineyard	\$ 591,492	\$ 147,873	\$ 739,366
4.429%	Merrimaak Valley	\$ 8,451,852	\$ 2,112,963	\$ 10,564,816
4.469%	Montachusett	\$ 8,509,093	\$ 2,127,273	\$ 10,636,366
0.220%	Nantucket	\$ 419,769	\$ 104,942	\$ 524,711
3.909%	Northern Middlesex	\$ 7,459,671	\$ 1,864,918	\$ 9,324,589
4.666%	Old Colony	\$ 8,699,706	\$ 2,174,927	\$ 10,874,633
10.899%	Pioneer Valley	\$ 20,625,716	\$ 5,156,429	\$ 25,782,146
6.960%	Southeastern Mass	\$ 17,096,225	\$ 4,274,056	\$ 21,370,281
	Total funding of regional priorities	\$ 180,893,862	\$ 47,790,840	\$ 238,604,702
Highway Division programs	\$ 334,891,330	\$ 74,380,936	\$ 409,362,286	
Reliability programs	\$ 280,691,330	\$ 62,844,288	\$ 343,435,698	
Bridge program	\$ 154,820,000	\$ 38,705,000	\$ 193,525,000	
	Inspections	\$ 14,320,000	\$ 3,680,000	\$ 17,900,000
	Systematic maintenance	\$ 8,000,000	\$ 2,000,000	\$ 10,000,000
	On-system NHS (minimum)	\$ 94,900,000	\$ 23,726,000	\$ 118,626,000
	On-System Non-NHS	\$ 9,100,000	\$ 2,276,000	\$ 11,376,000
	Off-system	\$ 20,600,000	\$ 7,126,000	\$ 27,726,000
Interstate pavement program	\$ 37,585,665	\$ 4,176,185	\$ 41,761,860	
Non-interstate DOT pavement program	\$ 65,185,665	\$ 16,296,416	\$ 81,482,081	
Roadway improvements program	\$ 3,000,000	\$ 750,000	\$ 3,760,000	
Safety improvements program	\$ 20,000,000	\$ 2,916,667	\$ 22,916,667	
Modernization programs	\$ 34,400,000	\$ 6,618,887	\$ 40,918,887	
ADA retrofits program	\$ -	\$ -	\$ -	
Intersection Improvements program	\$ 17,000,000	\$ 2,166,667	\$ 19,166,667	
Intelligent Transportation Systems program	\$ 10,000,000	\$ 2,500,000	\$ 12,500,000	
Roadway reconstruction program	\$ 7,400,000	\$ 1,850,000	\$ 9,260,000	
Expansion programs	\$ 20,000,000	\$ 6,000,000	\$ 26,000,000	
Bicycles and pedestrians program	\$ 20,000,000	\$ 5,000,000	\$ 25,000,000	
Capacity program	\$ -	\$ -	\$ -	

**FFY 2019-2023 STIP
2021 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2021 (Proposed) <i>(federal aid + match)</i>
Base obligation authority	\$ 641,988,270		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 691,988,270		
ABP GANS Repayment	\$ (85,190,000)		
Total non-earmarked funding available	\$ 606,798,270	\$ 144,651,660	\$ 751,449,930
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 33,342,205	\$ 8,335,551	\$ 41,677,756
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 64,131,766	\$ 15,755,164	\$ 79,886,929
Funding for regional priorities	regional share %	MPO	Total federal aid
			Matching funds
			Total funding (proposed)
	3.5596%	Berkshire	\$ 6,929,328
	42.9671%	Boston	\$ 83,642,302
	4.5851%	Cape Cod	\$ 8,925,627
	8.6901%	Central Mass	\$ 16,916,663
	2.5397%	Franklin	\$ 4,943,930
	0.3100%	Martha's Vineyard	\$ 603,464
	4.4296%	Merrimack Valley	\$ 8,622,922
	4.4596%	Montachusett	\$ 8,681,322
	0.2200%	Nantucket	\$ 428,265
	3.9096%	Northern Middlesex	\$ 7,610,659
	4.5595%	Old Colony	\$ 8,875,793
	10.8099%	Pioneer Valley	\$ 21,043,192
	8.9601%	Southeastern Mass	\$ 17,442,261
		<i>Total funding of regional priorities</i>	\$ 194,665,923
			\$ 48,666,432
			\$ 243,332,161
Highway Division programs			\$ 348,000,581
			\$ 80,230,065
			\$ 428,230,646
Reliability programs			\$ 239,280,581
			\$ 54,577,842
			\$ 293,858,423
Bridge program			\$ 140,500,000
			\$ 35,125,000
			\$ 175,625,000
		<i>Inspections</i>	\$ -
		<i>Systematic maintenance</i>	\$ 8,000,000
		<i>On-system NHS (minimum)</i>	\$ 94,900,000
		<i>On-System Non-NHS</i>	\$ 9,100,000
		<i>Off-system</i>	\$ 28,500,000
			\$ 7,125,000
			\$ 35,625,000
Interstate pavement program			\$ 24,744,581
			\$ 2,749,398
			\$ 27,493,979
Non-interstate DOT pavement program			\$ 54,036,000
			\$ 13,509,000
			\$ 67,545,000
Roadway improvements program			\$ 3,000,000
			\$ 750,000
			\$ 3,750,000
Safety improvements program			\$ 17,000,000
			\$ 2,444,444
			\$ 19,444,444
Modernization programs			\$ 80,720,000
			\$ 18,652,222
			\$ 99,372,222
ADA retrofits program			\$ 1,400,000
			\$ 350,000
			\$ 1,750,000
Intersection improvements program			\$ 16,000,000
			\$ 2,472,222
			\$ 18,472,222
Intelligent Transportation Systems program			\$ 8,000,000
			\$ 2,000,000
			\$ 10,000,000
Roadway reconstruction program			\$ 55,320,000
			\$ 13,830,000
			\$ 69,150,000
Expansion programs			\$ 28,000,000
			\$ 7,000,000
			\$ 35,000,000
Bicycles and pedestrians program			\$ 28,000,000
			\$ 7,000,000
			\$ 35,000,000
Capacity program			\$ -
			\$ -
			\$ -

**FFY 2019-2023 STIP
2022 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2022 (Proposed) <i>(federal aid + match)</i>		
Base obligation authority	\$ 658,744,163				
Planned redistribution request	\$ 50,000,000				
Total Estimated Funding Available	\$ 708,744,163				
ABP GANS Repayment	\$ (89,590,000)				
Total non-earmarked funding available	\$ 619,154,163	\$ 147,301,057	\$ 766,455,220		
Planning / Adjustments / Pass-throughs					
Award adjustments, change orders, etc.	\$ 36,361,281	\$ 9,090,320	\$ 45,451,601		
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829		
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371		
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340		
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411		
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222		
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000		
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 67,150,842	\$ 16,509,933	\$ 83,660,774		
Funding for regional priorities	regional share %	MPO	Total federal aid		
			Matching funds		
			Total funding (proposed)		
	3.5596%	Berkshire	\$ 7,070,426	\$ 1,767,607	\$ 8,838,033
	42.9671%	Boston	\$ 85,345,463	\$ 21,336,366	\$ 106,681,829
	4.5851%	Cape Cod	\$ 9,107,375	\$ 2,276,844	\$ 11,384,218
	8.6901%	Central Mass	\$ 17,261,128	\$ 4,315,282	\$ 21,576,410
	2.5397%	Franklin	\$ 5,044,601	\$ 1,261,150	\$ 6,305,751
	0.3100%	Martha's Vineyard	\$ 615,752	\$ 153,938	\$ 769,690
	4.4296%	Merrimack Valley	\$ 8,798,505	\$ 2,199,626	\$ 10,998,132
	4.4596%	Montachusett	\$ 8,858,094	\$ 2,214,524	\$ 11,072,618
	0.2200%	Nantucket	\$ 436,986	\$ 109,246	\$ 546,232
	3.9096%	Northern Middlesex	\$ 7,765,631	\$ 1,941,408	\$ 9,707,038
	4.5595%	Old Colony	\$ 9,056,526	\$ 2,264,131	\$ 11,320,657
	10.8099%	Pioneer Valley	\$ 21,471,682	\$ 5,367,921	\$ 26,839,603
	8.9601%	Southeastern Mass	\$ 17,797,428	\$ 4,449,357	\$ 22,246,785
		<i>Total funding of regional priorities</i>	\$ 198,629,796	\$ 49,657,399	\$ 248,286,997
Highway Division programs			\$ 353,373,525	\$ 81,133,725	\$ 434,507,250
Reliability programs			\$ 246,873,525	\$ 56,592,058	\$ 303,465,583
Bridge program			\$ 154,820,000	\$ 38,705,000	\$ 193,525,000
		<i>Inspections</i>	\$ 14,320,000	\$ 3,580,000	\$ 17,900,000
		<i>Systematic maintenance</i>	\$ 8,000,000	\$ 2,000,000	\$ 10,000,000
		<i>On-system NHS (minimum)</i>	\$ 94,900,000	\$ 23,725,000	\$ 118,625,000
		<i>On-System Non-NHS</i>	\$ 9,100,000	\$ 2,275,000	\$ 11,375,000
		<i>Off-system</i>	\$ 28,500,000	\$ 7,125,000	\$ 35,625,000
Interstate pavement program			\$ 22,909,525	\$ 2,545,503	\$ 25,455,028
Non-interstate DOT pavement program			\$ 51,144,000	\$ 12,786,000	\$ 63,930,000
Roadway improvements program			\$ 1,000,000	\$ 250,000	\$ 1,250,000
Safety improvements program			\$ 17,000,000	\$ 2,305,556	\$ 19,305,556
Modernization programs			\$ 78,500,000	\$ 17,541,667	\$ 96,041,667
ADA retrofits program			\$ -	\$ -	\$ -
Intersection improvements program			\$ 15,000,000	\$ 1,666,667	\$ 16,666,667
Intelligent Transportation Systems program			\$ 8,000,000	\$ 2,000,000	\$ 10,000,000
Roadway reconstruction program			\$ 55,500,000	\$ 13,875,000	\$ 69,375,000
Expansion programs			\$ 28,000,000	\$ 7,000,000	\$ 35,000,000
Bicycles and pedestrians program			\$ 28,000,000	\$ 7,000,000	\$ 35,000,000
Capacity program			\$ -	\$ -	\$ -

**FFY 2019-2023 STIP
2023 BUDGET**

	Obligation authority (federal aid only)	Matching funds	FFY 2023 (Proposed) (federal aid + match)
Base obligation authority	\$ 676,662,005		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 726,662,005		
ABP GANS Repayment	\$ (93,985,000)		
Total non-earmarked funding available	\$ 632,677,005	\$ 150,023,500	\$ 782,700,504
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 20,000,000	\$ 5,000,000	\$ 25,000,000
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 48,543,689	\$ 11,858,144	\$ 60,401,833
Funding for regional priorities	regional share % MPO	Total federal aid	Matching funds Total funding (proposed)
	3.5596% Berkshire	\$ 7,224,850	\$ 1,806,213 \$ 9,031,063
	42.9671% Boston	\$ 87,209,479	\$ 21,802,370 \$ 109,011,849
	4.5851% Cape Cod	\$ 9,306,287	\$ 2,326,572 \$ 11,632,859
	8.6901% Central Mass	\$ 17,638,125	\$ 4,409,531 \$ 22,047,657
	2.5397% Franklin	\$ 5,154,779	\$ 1,288,695 \$ 6,443,474
	0.3100% Martha's Vineyard	\$ 629,201	\$ 157,300 \$ 786,501
	4.4296% Merrimack Valley	\$ 8,990,672	\$ 2,247,668 \$ 11,238,340
	4.4596% Montachusett	\$ 9,051,563	\$ 2,262,891 \$ 11,314,453
	0.2200% Nantucket	\$ 446,530	\$ 111,632 \$ 558,162
	3.9096% Northern Middlesex	\$ 7,935,238	\$ 1,983,810 \$ 9,919,048
	4.5595% Old Colony	\$ 9,254,328	\$ 2,313,582 \$ 11,567,910
	10.8099% Pioneer Valley	\$ 21,940,642	\$ 5,485,160 \$ 27,425,802
	8.9601% Southeastern Mass	\$ 18,186,139	\$ 4,546,535 \$ 22,732,674
<i>Total funding of regional priorities</i>		\$ 202,968,036	\$ 50,741,958 \$ 253,709,792
Highway Division programs		\$ 381,165,279	\$ 87,423,397 \$ 468,588,676
Reliability programs		\$ 267,601,252	\$ 61,384,440 \$ 326,834,487
Bridge program		\$ 166,996,123	\$ 41,749,031 \$ 207,515,202
	<i>Inspections</i>		\$ - \$ -
	<i>Systematic maintenance</i>	\$ 8,629,176	\$ 2,157,294 \$ 10,722,914
	<i>On-system NHS</i>	\$ 94,900,000	\$ 23,725,000 \$ 118,625,000
	<i>On-System Non-NHS</i>	\$ 9,815,687	\$ 2,453,922 \$ 12,197,315
	<i>Off-system</i>	\$ 28,500,000	\$ 7,125,000 \$ 35,625,000
Interstate pavement program		\$ 24,711,290	\$ 2,745,699 \$ 27,456,989
Non-interstate DOT pavement program		\$ 56,414,722	\$ 14,103,681 \$ 70,518,403
Roadway improvements program		\$ 1,142,119	\$ 285,530 \$ 1,427,648
Safety improvements program		\$ 18,336,998	\$ 2,500,500 \$ 20,837,498
Modernization programs		\$ 84,673,787	\$ 18,816,397 \$ 102,880,407
ADA retrofits program		\$ 1,400,000	\$ 350,000 \$ 1,750,000
Intersection improvements program		\$ 16,934,757	\$ 1,881,640 \$ 18,705,529
Intelligent Transportation Systems program		\$ 8,000,000	\$ 2,000,000 \$ 10,000,000
Roadway reconstruction program		\$ 58,339,029	\$ 14,584,757 \$ 72,424,878
Expansion programs		\$ 28,890,241	\$ 7,222,560 \$ 36,112,801
Bicycles and pedestrians program		\$ 28,890,241	\$ 7,222,560 \$ 36,112,801
Capacity program		\$ -	\$ - \$ -

The following table shows the total federal programmed amounts in this TIP for each of the five years covered in this document. The funding summaries below show the total Operating and Maintenance costs versus Capital and Other costs, for each year of the TIP. A fiscal constraint finding for the State Transportation Improvement Program will include the cost of operating and maintaining the existing MVMPO transportation system.

Highway Program Financial Plan Table

Merrimack Valley Metropolitan Planning Organization

FFY 2019-2023 Transportation Improvement Program

(FHWA - related funding categories only)

Total Costs including Federal and State Match*

Figures include Federal Aid “target” program & statewide funding

Fiscal Year	Federal Programmed Operating/ Maintenance Costs*(inc. Match)	Federal Programmed Capital and Other Costs*(inc. Match)	Total Federal + Match Programmed*	Total Federal + Match Estimated Available Funds*
2019	\$29.15	\$6.63	\$35.78	\$35.78
2020	\$19.80	\$8.35	\$28.15	\$30.36
2021	\$32.17	\$10.55	\$42.72	\$42.72
2022	\$19.80	\$14.84	\$34.64	\$35.14
2023	\$15.89	\$28.51	\$44.41	\$44.41

* Millions of dollars

The financial plan contained herein is financially constrained and indicates that the Merrimack Valley Metropolitan Planning Organization's FFYs 2019-2023 TIP reflects an emphasis on the maintenance and operation of the current roadway and bridge system with the ability to provide additional capital improvements. Only projects for which funds can be expected have been included.

Appendix B of this document includes a list of Non-federal-aid transportation projects in the region. The projects listed in Appendix B are an integral part of the planning, programming, and priority setting process of the MVMPO but have no available funding source.

Summary of Highway Funding Categories

The following tables contain a breakdown of the project cost totals and federal aid cost portions by federal aid funding categories for each fiscal year and the expected available resources to cover the cost.

Cost Estimates and Available Resources

Summary By Funding Category

Highway Projects Federal Fiscal Year 2019

Highway FFY 2019	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) (From Region Target if not Statewide Category)
Regional Target Highway Safety Program (HSIP)	\$398.66	\$442.96	\$442,956
Regional Target Surface Transportation Program (STP)	\$7,793.54	\$9,741.92	\$9,741.92
Regional Target Subtotals	\$8,192.20	\$10,184.88	\$10,184.88
Statewide (SW) Bridges On-System (NHPP-On)	\$18,962.74	\$23,703.43	\$23,703.43
Statewide Other Federal Aid Earmark Demo ID MA 175 (HPP)	\$20.32	\$25.39	\$25.39
Statewide Roadway Reconstruction SRTS (TAP)	\$1,493.29	\$1,866.62	\$1,866.62
Total FFY 2019	\$28,668.55	\$35,780.32	\$35,780.32

Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2020

Highway FFY 2020	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) (From Region Target if not Statewide Category)
Regional Target Surface Transportation Program (STP)	\$6,628.16	\$8,285.20	\$10,495.97
Regional Target Transportation Alternatives Program (TAP)	\$55.08	\$68.85	\$68.85
Regional Target Subtotals	\$6,683.24	\$8,354.05	\$10,564.81
Statewide On-System Bridges (NHPP-On)	\$15,838.19	\$19,797.73	\$19,797.73
Total FFY 2020	\$22,521.43	\$28,151.78	\$30,362.54

Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2021

Highway FFY 2021	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) (From Region Target if not Statewide Category)
Regional Target Congestion Mitigation/AQ Program (CMAQ)	\$1,212.99	\$1,516.24	\$1,516.24
Regional Target Highway Safety Program (HSIP)	\$398.66	\$442.96	\$442.96
Regional Target Surface Transportation Program (STP)	\$6,515.57	\$8,144.46	\$8,144.46
Regional Target Transportation Alternatives Program (TAP)	\$540.00	\$674.99	\$674.99
Regional Target Subtotals	\$8,667.22	\$10,778.65	\$10,778.65
Statewide On System Bridges (NHPP-On)	\$15,838.19	\$19,797.73	\$19,797.73
Statewide Bicycles and Pedestrians (CMAQ)	\$1,499.22	\$1,874.03	\$1,874.03
Statewide Non-Interstate Pavement (NHPP)	\$8,217.33	\$10,271.66	\$10,271.66
Total FFY 2021	\$34,221.96	\$42,722.07	\$42,722.07

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2022**

Highway FFY 2022	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) (From Region Target if not Statewide Category)
Regional Target Congestion Mitigation/AQ Program (CMAQ)	\$885.91	\$1,107.39	\$1,107.39
Regional Target Highway Safety Program (HSIP)	\$398.66	\$442.96	\$442.96
Regional Target Surface Transportation Program (STP)	\$6,881.77	\$8,602.21	\$9,096.79
Regional Target Transportation Alternatives Program (TAP)	\$280.80	\$351.00	\$351.00
Regional Target Subtotals	\$8,447.14	\$10,503.56	\$10,998.14
Statewide On System Bridges (NHPP-On)	\$15,838.19	\$19,797.73	\$19,797.73
Statewide Bicycles and Pedestrians (CMAQ)	\$3,472.90	\$4,341.12	\$4,341.12
Total FFY 2022	\$27,758.23	\$34,642.41	\$35,136.99

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2023**

Highway FFY 2023	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) (From Region Target if not Statewide Category)
Regional Target Congestion Mitigation/AQ Program (CMAQ)	\$8,990.67	\$11,238.34	\$11,238.34
Regional Target Highway Safety Program (HSIP)			
Regional Target Surface Transportation Program (STP)			
Regional Target Transportation Alternatives Program (TAP)			
Regional Target Subtotals	\$8,990.67	\$11,238.34	\$11,238.34
Statewide On-System Bridges (NHPP-On)	\$12,713.63	\$15,892.04	\$15,892.04
Statewide Bicycle and Pedestrians (CMAQ)	\$13,822.91	\$17,278.64	\$17,278.64
Total FFY 2023	\$35,527.21	\$44,409.02	\$44,409.02

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Part C. 2. Transit Program Financial Plan

Planning Justification for Transit Projects

The Merrimack Valley region's FFYs 2019-2023 TIP federal aid transit projects are to be carried out using Sections 5307 received by the MVRTA from the FTA with the exception of the provision of operating assistance, the planning justification for the Section 5307 projects are contained in the Merrimack Valley Regional Transit Authority's Five-Year Capital Program for 2019-2023.

MVRTA Financial Status

The FAST Act requires that projects appearing in the TIP must have an identified source of funding that will allow them to be completed within the time period contemplated. Transit projects appearing in the FY 2019-2023 TIP meet this criterion.

Transit Program Financial Plan Table

Merrimack Valley Metropolitan Planning Organization
 FFYs 2019-2023 Transportation Improvement Program
 (FTA related funding categories only)
 Total Costs including Federal, State and Local*

Fiscal Year	Federal Programmed Operating/ Maintenance Costs* (inc. Match)	Federal Programmed Capital and Other Costs* (inc. Match)	Total Federal + Match Programmed*	Total Federal + Match Estimated Available Funds*
2019	\$6.17	\$0.13	\$6.30	\$6.30
2020	\$8.95	\$0.10	\$9.05	\$9.05
2021	\$7.02	\$0.10	\$7.12	\$7.12
2022	\$9.28	\$0.10	\$9.38	\$9.38
2023	\$7.12	\$0.10	\$7.22	\$7.22

* Millions of dollars

**Cost Estimates and Available Resources
Summary by Funding Category
2019 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2019	Regional TIP FFY 2019	Balance FFY 2019
Section 5307 Capital and Planning Formula	\$5,814,740	\$1,570,195	\$4,244,545
Section 5307 Transit Enhancements			
Subtotal	\$5,814,740	\$1,570,195	\$4,244,545
Section 5307 Capital and Planning Formula Carryover	\$3,209,330	\$3,209,330	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$3,209,330	\$3,209,330	\$0
Section 5307 Total	\$9,024,070	\$4,779,525	\$4,244,545
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled	\$27,000	\$27,000	\$0
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$9,051,070	\$4,806,525	\$4,244,545
Other Transit Funding (Non-Federal Aid)	\$3,313,464	\$3,313,464	\$0

**Cost Estimates and Available Resources
Summary by Funding Category
2020 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2020	Regional TIP FFY 2020	Balance FFY 2020
Section 5307 Capital and Planning Formula	\$5,901,960	\$2,715,305	\$3,186,655
Section 5307 Transit Enhancements			
Subtotal	\$5,901,960	\$2,715,305	\$3,186,655
Section 5307 Capital and Planning Formula Carryover	\$4,244,545	\$4,244,545	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$4,244,545	\$4,244,545	\$0
Section 5307 Total	\$10,146,505	\$6,959,850	\$3,186,655
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$10,146,505	\$6,959,850	\$3,186,655
Other Transit Funding			

**Cost Estimates and Available Resources
Summary by Funding Category
2021 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2021	Regional TIP FFY 2021	Balance FFY 2021
Section 5307 Capital and Planning Formula	\$5,990,490	\$2,233,145	\$3,757,345
Section 5307 Transit Enhancements			
Subtotal	\$5,990,490	\$2,233,145	\$3,757,345
Section 5307 Capital and Planning Formula Carryover	\$3,186,655	\$3,186,655	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$3,186,655	\$3,186,655	\$0
Section 5307 Total	\$9,177,145	\$5,419,800	\$3,757,345
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$9,177,145	\$5,419,800	\$3,757,345
Other Transit Funding			

Summary of Transit Funding Categories

Cost Estimates and Available Resources

Summary by Funding Category

2022 Transit Projects

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2022	Regional TIP FFY 2022	Balance FFY 2022
Section 5307 Capital and Planning Formula	\$6,080,345	\$3,458,625	\$2,621,720
Section 5307 Transit Enhancements			
Subtotal	\$6,080,345	\$3,458,625	\$2,621,720
Section 5307 Capital and Planning Formula Carryover	\$3,757,345	\$3,757,345	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$3,757,345	\$3,757,345	\$0
Section 5307 Total	\$9,837,690	\$7,215,970	\$2,621,720
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$9,837,690	\$7,215,970	\$2,621,720
Other Transit Funding (Non-Federal Aid)			

**Cost Estimates and Available Resources
Summary by Funding Category
2023 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2023	Regional TIP FFY 2023	Balance FFY 2023
Section 5307 Capital and Planning Formula	\$6,171,550	\$2,926,440	\$3,245,110
Section 5307 Transit Enhancements			
Subtotal	\$6,171,550	\$2,926,440	\$3,245,110
Section 5307 Capital and Planning Formula Carryover	\$2,621,720	\$2,621,720	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$2,621,720	\$2,621,720	\$0
Section 5307 Total	\$8,793,270	\$5,548,160	\$3,245,110
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Section 5339 Bus and Bus Related Equipment and Facilities			
Federal Aid Total	\$8,793,270	\$5,548,160	\$3,245,110
Other Transit Funding (Non-Federal Aid)	\$0	\$0	\$0

MVRTA Transit Operations and Maintenance Summary Table

State Fiscal Year 2017 (Actual), 2018 (Adopted Budget), and 2019 to 2023 (Projected)

The numbers below represent actual numbers for the previous year, the current year budget/forecast approved by the MVRTA Advisory Board, and Projections for the out-years. These numbers indicate that there are sufficient revenues projected to meet the operating needs of the MVRTA.

	Audit	Adopted Budget	DRAFT Budget	Projected	Projected	Projected	Projected
Operating Revenue	Actual	Current	Yr One	Yr Two	Yr Three	Yr Four	Yr Five
	2017	2018	2019	2020	2021	2022	2023
Farebox	\$1,792,097	\$2,025,035	\$1,909,135	\$2,050,315	\$2,070,805	\$2,091,520	\$2,112,435
Section 5307	\$3,827,283	\$3,901,185	\$3,723,390	\$4,032,015	\$4,340,640	\$4,503,230	\$4,669,850
Section 5311							
CMAQ/TDM							
Fully Funded*							
Job Access/ Reverse Commute							
New Freedom							

MVRTA Transit Operations and Maintenance Summary Table

State Fiscal Year 2017 (Actual), 2018 (Adopted Budget), and 2019 to 2023 (Projected) (Continued)

	Audit	Adopted Budget	Draft Budget	Projected	Projected	Projected	Projected
Operating Revenue	Actual	Current	Yr One	Yr Two	Yr Three	Yr Four	Yr Five
	2017	2018	2019	2020	2021	2022	2023
Advertising	\$36,528	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Interest Income	\$2,523	\$0	\$0	\$0	\$0	\$0	
Rental Income	-						
State Contract Assistance **	\$6,836,168	\$6,669,430	\$7,361,800	\$7,545,845	\$7,734,490	\$7,927,850	\$8,126,050
Local Assessment	\$3,384,908	\$3,470,925	\$3,662,285	\$3,648,905	\$3,741,300	\$3,836,030	\$3,932,885
Other: (Define)	\$916,587	\$961,680	\$962,855	\$996,125	\$1,013,890	\$1,032,020	\$1,050,060
Total Revenue	\$16,796,094	\$17,053,255	\$17,646,465	\$18,298,205	\$18,926,125	\$19,415,650	\$19,916,280

MVRTA Transit Operations and Maintenance Summary

State Fiscal Year 2017 (Actual), 2018 (Adopted Budget), and 2019 to 2023 (Projected) (Continued)

Operating Expenses ***	Actual	Current	Yr One	Yr Two	Yr Three	Yr Four	Yr Five
	2017	2018	2019	2020	2021	2022	2023
Total (See Below)	\$16,796,094	\$17,053,255	\$17,646,465	\$18,298,205	\$18,926,125	\$19,415,650	\$19,916,280

Footnotes:

* Fully funded refers to contract work often to Human Service Agencies

** Operating assistance provided by the State

*** Description of Operating Expenses: Salaries and Wages; Fringe Benefits: Legal, Accounting and Professional Services; Promotion/Marketing; Insurance; Equipment Leases and Rentals; Real Property Leases and Rentals; Non-capitalized Maintenance/Repair; Fuel costs; Tire costs; Office Supplies and Equipment; Interest expense; Utilities; Management Fees; Travel and Training; and Other miscellaneous expense items.

Part C. 3. Status on Implementation of FFY 2018 TIP Projects
FFY 2018 Highway Project List

Regional Target Projects

Project ID	Location	Project Description	Mass DOT District	Funding Category	Total Programmed Funds	Project Status as of May 23, 2018
608946	Lawrence	Lawrence - Intersection Improvements at Haverhill Street (Route 110) and Ames Street	4	STP	\$1,267,500	Added to FFY 2018 by March 2018 Amendment. 25% Package Comments to Design Engineer as of 5/4/2018. FFY 2018.
606159	North Andover	North Andover – Intersection & Signal Improvements at Route 125 & Massachusetts Avenue	4	STP, HSIP and EARMARK	\$3,640,038	Removed from programming, re-programmed in FFY 2019 of the 19-23 TIP for \$5,446,662.
605020	Salisbury	Salisbury – Multi-use Trail Extension (Borders to Boston Trail), includes new Bridge S-02-004	4	CMAQ and TAP	\$7,184,195	Increased funding to \$7,184,195. 100% Package Received as of 4/27/2018. FFY 2018.

**Part C. 3. Status on Implementation of FFY 2018 TIP Projects
FFY 2018 Highway Project List (Cont.)**

Statewide Projects

Project ID	Location	Project Description	Mass DOT District	Funding Category	Total Programmed Funds	Project Status as of May 23, 2018
607737	Amesbury/ Salisbury	Amesbury – Salisbury – Trail Connector @ I-95	4	CMAQ	\$2,574,805	75% Package Received as of 2/5/2018. FFY 2018.
605306	Haverhill	Haverhill – Bridge Replacement, H-12-039, I-495 (NB & SB) over Merrimack River	4	NHPP-ON	\$19,797,733	Contract Awarded 5/14/2018. (Adjustment reduced FFY 2018 amount to \$19,797,733, increased total project cost to \$118,786,388 and extended AC from 5 to 6 years.)
608809	Lawrence/ North Andover	Resurfacing and related work on Route 114	4	NHPP	\$2,123,453	100% Package Comments to Design Engineer 5/10/2018. FFY 2018.

Part C. 3. Status on Implementation of FFY 2018 TIP Projects

FFY 2018 Transit Project List

5307								
Project Number	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total	Status as of May 23, 2018
RTD0005637	ADA Operating Expense		\$1,130,695	\$282,675	\$0	\$0	\$1,413,370	Ongoing
RTD0005638	Preventative Maintenance Expense		\$2,522,325	\$630,580	\$0	\$0	\$3,152,905	Ongoing
RTD0005639	Refurbish Engine/trans 8 model year 2012 buses		\$211,200	\$52,800	\$0	\$0	\$264,000	Delivery June 2018
RTD0005642	OPERATING ASSISTANCE		\$321,505	\$321,505	\$0	\$0	\$643,010	Ongoing
RTD0005643	SHORT RANGE TRANSIT PLANNING		\$80,000	\$0	\$0	\$20,000	\$100,000	Ongoing
RTD0005656	Replace 6 Model Yr 2004 buses delivery 2018		\$2,151,600	\$537,900	\$0	\$0	\$2,689,500	5 delivered, 1 expected next week
RTD0006785	Replace 1 Model Yr 2013 Support Vehicle		\$38,200	\$9,550	\$0	\$0	\$47,750	Delivered

Part C. 3. Status on Implementation of FFY 2018 TIP Projects

FFY 2018 Non-Federal Aid Transit Project List

Other Non-Federal								
Project Number	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total	Status as of May 23, 2018
RTD0005665	Newburyport Intermodal Transit Facility Year 1		\$0	\$2,500,000	\$0	\$0	\$2,500,000	Ongoing

Part C. 4. Air Quality Conformity

Meeting Air Quality Goals in Transportation Massachusetts Department of Transportation (MassDOT) and the Metropolitan Planning Organizations (MPOs)

Introduction

This report documents recent progress made by MassDOT and the MPOs in meeting air quality goals established through state and (currently former) federal regulations applicable to Massachusetts. It consists of two parts: 1) A “progress report” that documents future carbon dioxide (CO₂) emission estimates from the transportation sector as part of meeting greenhouse gas (GHG) reduction goals established through the Commonwealth’s Global Warming Solutions Act (GWSA), and 2) An informational analysis of future vehicle emissions of ozone precursor pollutants – formerly a federal “air quality conformity” requirement for areas of Massachusetts.

Section 1

GWSA Transportation Status: Future Carbon Dioxide Emissions Reductions

The Global Warming Solutions Act of 2008 requires statewide reductions in greenhouse gas (CO₂) emissions of 25 percent below 1990 levels by the year 2020, and 80 percent below 1990 levels by 2050. As part of the GWSA, the Executive Office of Energy and Environmental Affairs developed the Massachusetts Clean Energy and Climate Plan (CECP), which outlines programs to attain the 25 percent reduction by 2020 – including a 7.6 percent reduction that would be attributed to the transportation sector.

The Commonwealth’s thirteen metropolitan planning organizations (MPOs) are integrally involved in helping to achieve greenhouse gas reductions mandated under the GWSA. The MPOs work closely with the Massachusetts Department of Transportation (MassDOT) and other involved agencies to develop common transportation goals, policies, and projects that would help to reduce GHG emission levels statewide and meet the specific requirements of the GWSA regulation – *Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation (310 CMR 60.05)*. The purpose of this regulation is to assist the Commonwealth in achieving their adopted GHG emission reduction goals by:

- Requiring MassDOT to demonstrate that its GHG reduction commitments and targets are being achieved.
- Requiring each MPO to evaluate and track the GHG emissions and impacts of both its Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP).
- Requiring each MPO, in consultation with MassDOT, to develop and utilize procedures to prioritize and select projects in its RTP and TIP based on factors that include GHG emissions and impacts.

Meeting the requirements of this regulation is being achieved through the transportation goals and policies contained in the 2016 Regional Transportation Plans (RTPs), the major projects planned in the RTPs, and the mix of new transportation projects that are programmed and implemented through the Transportation Improvement Program (TIPs). The GHG tracking and evaluation processes enable the MPOs and MassDOT to identify the anticipated GHG impacts of the planned and programmed projects, and also to use GHG impacts as a criterion in prioritizing transportation projects. This approach is consistent with the greenhouse gas reduction policies of promoting healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments; as well as supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. All of the MPOs and MassDOT are working toward reducing greenhouse gases with “sustainable” transportation plans, actions, and strategies that include (but are not limited to):

- Reducing emissions from construction and operations
- Using more fuel-efficient fleets
- Implementing and expanding travel demand management programs
- Encouraging eco-driving
- Providing mitigation for development projects
- Improving pedestrian, bicycle, and public transit infrastructure and operations (healthy transportation)
- Investing in higher density, mixed use, and transit-oriented developments (smart growth)

Regional GHG Tracking and Evaluation in RTPs

MassDOT coordinated with MPOs and regional planning agency (RPA) staffs on the implementation of GHG tracking and evaluation in development of each MPO's 2012 RTPs, which were adopted in September 2011. This collaboration has continued for the MPO's 2016 RTPs and 2018-2022 TIPs. Working together, MassDOT and the MPOs have attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector, as a supplement to the 2016 RTPs. Using the Boston MPO's regional travel demand model and the newly updated statewide travel demand model for the remainder of the state, GHG emissions have been projected for 2020 no-build (base) and build (action) conditions, and for 2040 no-build (base) and build (action) conditions. The results of this modeling are presented at the end of this section.
- All of the MPOs have addressed GHG emission reduction projections in their RTPs (including these supplemental statewide estimates), along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

MassDOT’s statewide estimates of CO₂ emissions resulting from the collective list of all recommended projects in all the Massachusetts RTPs combined are presented below. Emissions have been estimated using the new (2014) MOVES model, and also incorporate the latest planning assumptions including updated socio-economic projections for the Commonwealth:

Massachusetts Statewide CO₂ Emissions Estimates
(all emissions in tons per summer day)

Year	CO₂ Action Emissions	CO₂ Base Emissions	Difference (Action – Base)
2012	185,324.3	185,324.3	n/a
2020	138,611.3	138,638.1	-26.7
2030	89,631.6	89,645.3	-13.7
2040	70,010.7	70,035.5	-24.8

This analysis measures only projects that are included in the travel demand models. Many other types of projects that cannot be accounted for in the model (such as bicycle and pedestrian facilities, shuttle services, intersection improvements, etc.), are covered in the regional TIPs with either “qualitative” assessments of likely CO₂ change, or actual quantitative estimates listed for each project.

As shown above, collectively, all the projects in the RTPs in the 2020 Action scenario provide a statewide reduction of over 26 tons of CO₂ per day compared to the base case. The 2040 Action scenario estimates a reduction of nearly 25 tons of CO₂ emissions compared to the base case.

These results demonstrate that the transportation sector is expected to make positive progress in meeting the GHG reduction targets and complying with the requirements of the GWSA. MassDOT and the MPOs will continue to advocate for steps needed to accomplish the Commonwealth’s long-term goals for greenhouse gas reductions.

Section 2

Statewide Ozone Precursor Analysis (for informational purposes only)

Legislative Background on Ozone

The 1970 Clean Air Act defined a one-hour national ambient air-quality standard (NAAQS) for ground-level ozone. The 1990 Clean Air Act Amendments further classified degrees of nonattainment of the one-hour standard based on the severity of 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; this was later extended first to 2003, then to 2007.

In 1997, the U.S. Environmental Protection Agency (EPA) proposed a new, eight-hour ozone NAAQS to replace the one-hour standard, effective June 15, 2005. The new standard was challenged in court, and after a lengthy legal battle, the courts upheld the standard, which was finalized in June 2004. The eight-hour standard was 0.08 parts per million (ppm), 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 eight-hour values. Massachusetts as a whole was classified as being in moderate nonattainment for the eight-hour standard, but it was separated into two nonattainment areas—Eastern Massachusetts and Western Massachusetts. Both nonattainment areas were required to reduce its emissions of VOCs and NO_x to achieve attainment of the eight-hour ozone NAAQS by 2009.

In March 2008, EPA published revisions to the eight-hour ozone NAAQS that established a level of 0.075 ppm (March 27, 2008; 73 FR 16483). After reviewing data from Massachusetts monitoring stations, the EPA sent a letter on December 16, 2011, proposing that only Dukes County would be designated as being in nonattainment for the new, proposed 0.075 ozone standard. Massachusetts concurred with these findings.

On May 21, 2012, the final rule (77 FR 30088) 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 (77 FR 30160), published on May 21, 2012, revoked the 1997 ozone NAAQS; the rule was to become effective one year after the 2008 NAAQS became effective (July 20, 2012). Also, on May 21, 2012, the air-quality designation areas for the 2008 NAAQS were published in the Federal Register. In this Federal Register, the only

area in Massachusetts that was designated as being in nonattainment for ozone was Dukes County. All other counties were classified as unclassifiable/ attainment. Therefore, the 13 MPOs are not required to perform a conformity determination for ozone for their LRTP.

All the Massachusetts MPOs and MassDOT continue to meet the requirements of air quality conformity according to the Code of Federal Regulations, and as evaluated through inter-agency consultation. Specifically, 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 removed transportation conformity to the 1997 Ozone NAAQS (the standard referenced by the Conservation Law Foundation and the subject of a December 23, 2014 DC Circuit Court decision). Link to Final EPA Rulemaking: <http://www.gpo.gov/fdsys/pkg/FR-2015-03-06/pdf/2015-04012.pdf>

Since the LRTPs have been developed, reviewed, and approved after April 6, 2015, air quality conformity determinations to the 1997 Ozone NAAQS are no longer required, as those standards and all associated area designations have been permanently replaced by the 2008 NAAQS, which (with actually a stricter level of allowable ozone concentration than the 1997 standards) no longer designate Massachusetts as a non- attainment area(s) for ozone except for Dukes County as discussed above.

Legislative Background on Carbon Monoxide

Although this document reports on statewide ozone precursor emissions, reporting on another criteria pollutant, carbon monoxide (CO) is still federally required for some MPOs in Massachusetts. The cities of Boston, Cambridge, Chelsea, Everett, Malden, Medford, Quincy, Revere, and Somerville within the Boston Region MPO were classified as being in attainment for CO emissions. As part of the Boston MPO LRTP, an air-quality conformity analysis is still completed for these communities, as they have a carbon monoxide maintenance plan approved as part of the SIP. This information can be found in Chapter 8 of [Charting Progress to 2040](#), the Boston MPO's current LRTP.

The Lowell, Waltham, Worcester and Springfield carbon monoxide areas are classified attainment with a limited maintenance plan in place. No regional air quality analysis is required in limited maintenance plan areas as emissions may be treated as essentially

not constraining for the length of the maintenance period because it is unreasonable to expect that such areas will experience so much growth in that period that a violation of the carbon monoxide NAAQS would result. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule are considered to satisfy the “budget test.” All other transportation conformity requirements under 40 CFR 93.109(b) continue to apply in limited maintenance areas, including project level conformity determinations based on carbon monoxide hot spot analyses under 40 CFR 93.116.

Ozone Analysis Criteria

The ozone analysis was prepared using the following criteria:

- The horizon years for the travel demand model analysis are established as 2012 (base year), 2020, 2030, and 2040.
- Projections for future population, employment, and households were developed jointly by MassDOT, the Metropolitan Area Planning Council, and the Donahue Institute of the University of Massachusetts. This was a cooperative and iterative process conducted throughout 2014 and into 2015, with input and comments from each MPO in the Commonwealth.
- Projections were incorporated into the statewide and Boston region travel demand models, along with updated travel characteristics, obtained through the 2010-2011 Massachusetts Travel Survey.
- The transit service assumptions for the MBTA were included in this analysis and were based on MBTA service in the spring of 2012. Travel demand model calibration was performed using the Ridership and Service Statistics, MBTA Blue Book, 2012 and the MBTA Systemwide Passenger Survey, 2008–09.
 - Factors used for calculating emissions changes were determined using the EPA’s latest emissions model, Motor Vehicle Emissions Simulator (MOVES) 2014. Inputs used for 2012 through 2040 were received from the DEP and include information about programs that were submitted to the EPA as the strategy for the Commonwealth to attain ambient air-quality standards.

- The Federal Highway Administration’s Highway Performance Monitoring System (HPMS) is used to track daily vehicle-miles of travel (VMT). For each MPO region, adjustment factors that compare the 2012 HPMS VMT to the 2012 base year VMT estimated by the travel demand models transportation model VMT were developed. The adjustment factors were then applied to all modeled VOC and NOx emissions for the years 2020 through 2040 to ensure consistency with EPA-accepted procedures.

Inclusion of Regionally Significant Transportation Projects

Only “regionally significant” projects are included in the travel-demand modeling. Regionally significant projects are defined as follows:

A transportation project (other than an exempt project) that is on a facility that serves regional transportation needs (such as access to and from the area outside of the MPO region; major activity centers in the region; major planned developments, such as new retail malls and sport complexes; and transportation terminals (as well as most terminals themselves) and would be included in the modeling of a metropolitan area’s transportation network, including at a minimum all principal arterial highways and all fixed-guideway transit facilities that offer an alternative to regional highway travel.

The following table lists the regionally significant projects proposed in the LRTPs in the Commonwealth:

Regionally Significant Projects Included in the Travel Demand Models

Analysis	Community	Project Description
2020	Bedford and Billerica	Middlesex Turnpike Improvements, From Crosby Drive North to Manning Road, Phase III
2020	Newton and Needham	Reconstruction of Highland Avenue, Needham Street and Charles River Bridge, from Webster Street to Route 9
2020	Weymouth and Abington	Reconstruction and Widening on Route 18 (Main Street) From Highland Place to Route 139
2020	Woburn	Reconstruction of Montvale Avenue, from I-93 Interchange to Central Street
2020	Woburn	Bridge Replacement, New Boston Street over MBTA
2030	Boston	Reconstruction of Rutherford Avenue, from City Square to Sullivan Square
2030	Framingham	Intersection Improvements at Route 126 and Route 135/MBTA and CSX Railroad
2030	Lexington	Route 4/225 (Bedford Street) and Hartwell Avenue
2030	Natick	Bridge Replacement, Route 27 (North Main St.) over Route 9 (Worcester St.) and Interchange Improvements
2030	Somerville and Medford	Green Line Extension Project (Phase 2), College Avenue to Mystic Valley Parkway/Route 16
2030	Somerville	McGrath Boulevard Project
2040	Barnstable	Hyannis Access Improvements
2030	Westborough	Route 9 Improvements
2030	Oxford	Route 20 capacity improvement
2030	Millbury	Turnpike/Route 146 int. improve.
2030	Worcester	I-290 Bridge Expansion

Regionally Significant Projects Included in the Travel Demand Models (Cont.)

2030	North Andover	Route 114 Reconstruction
2030	Athol	Route 2 Interchange @ S. Athol Rd
2040	Westford	Route 110 wid-
2040	Tewksbury, Andover	Lowell Junction Interchange
2020	Abington, Weymouth	Route 18 Widening (funded in Boston Region)
2020	Wilbraham	Boston Road Reconstruction
2020	Hadley	Route 9 Phase 1
2030	Hadley	Route 9 Phase 2
2030	Hadley	Route 9 Phase 3
2030	Middleborough	Routes 44/28/18 Rotary
2040	Taunton	Routes 24 & 140 Improvements
2040	Fall River	Route 79 Blvd

Emissions Inventory Assumptions

Although Massachusetts is currently in conformity for ozone, this informational analysis was done in relation to the State Implementation Plan mobile-source ozone emission projections that were approved in March 2008 for the revoked 1997 eight-hour NAAQS for VOC and NO_x. The VOC mobile-source emission budget for 2009 for the Eastern Massachusetts Ozone Nonattainment Area was set at 63.50 tons per summer day, and at 10.73 tons per summer day for the Western Massachusetts Ozone Nonattainment Area. The NO_x mobile-source emission budget for 2009 for the Eastern Massachusetts Ozone Nonattainment Area was set at 174.96 tons per summer day, and at 27.73 tons per summer day for the Western Massachusetts Ozone Nonattainment Area.

The Massachusetts Department of Transportation, Office of Transportation Planning (MassDOT Planning) estimated the results for the Eastern and Western Massachusetts Ozone Nonattainment Areas using the Statewide and Boston Region MPO regional travel demand model sets, based on the latest planning assumptions (as outlined in this document).

Ozone Analysis Results

MassDOT OTP conducted an air-quality analysis for the Commonwealth’s 13 MPO’s LRTP. The test used in this analysis was to show that the LRTPs are consistent with the emission budgets set for the revoked 1997 eight-hour ozone NAAQS as described above. The results are shown in the tables below. They include emissions from regionally significant projects as derived from the travel demand models and off-model emissions from commuter rail, commuter boat, and buses:

**VOC Emissions Estimates
Eastern Massachusetts Ozone Nonattainment Area
(all emissions in tons per summer day: tpsd)**

Year	VOC Action Emissions	VOC Budget	Difference (Action – Budget)
2012	30.56	n/a	n/a
2020	11.25	63.50	-52.25
2030	7.06	63.50	-56.44
2040	5.79	63.50	-57.71

NOx Emissions Estimates
Eastern Massachusetts Ozone Nonattainment Area (tpsd)

Year	NOx Action Emissions	NOx Budget	Difference (Action – Budget)
2012	116.97	n/a	n/a
2020	36.37	174.96	-138.59
2030	17.81	174.96	-157.15
2040	13.36	174.96	-161.60

VOC Emissions Estimates
Western Massachusetts Ozone Nonattainment Area (tpsd)

Year	VOC Action Emissions	VOC Budget	Difference (Action – Budget)
2012	3.61	n/a	n/a
2020	1.58	10.73	-9.15
2030	0.89	10.73	-9.84
2040	0.76	10.73	-9.97

NOx Emissions Estimates
Western Massachusetts Ozone Nonattainment Area (tpsd)

Year	NOx Action Emissions	NOx Budget	Difference (Action – Budget)
2012	13.10	n/a	n/a
2020	4.36	27.73	-23.37
2030	1.86	27.73	-25.87
2040	1.42	27.73	-26.31

Based on the preceding estimates, MassDOT Planning has found that the combined emission levels from transportation projects contained in the 2016 Regional Transportation Plans and 2016-2019 Transportation Improvement Programs – for both former ozone nonattainment areas in Massachusetts – would demonstrate conformity with the SIP, the Clean Air Act, and the EPA conformity regulations (40 CFR part 51).

Through the interagency air quality consultation process (involving U.S. Department of Transportation, EPA, DEP, MassDOT, and the MPOs) the latest EPA rulemakings, and the referenced legislative background and legal issues, currently applicable ozone standards, area designations, and requirements were all reviewed.

The ozone analysis outlined in this section demonstrates that the implementation of the 2016 RTPs and TIPs meets the “budget test,” and would therefore satisfy the air quality ozone conformity criteria, and is consistent with the air quality goals in the Massachusetts SIP.

Part C. 5. Special Efforts - ADA

Projects Required for Implementation of ADA

Another requirement of 23 CFR 450.324 is that projects required for the implementation of the Americans with Disabilities Act (ADA) should be so marked. There are no projects in this TIP listing that are required for the implementation of the Americans with Disabilities Act and therefore no projects are marked as such. There are projects to replace existing accessible transit vehicles with new accessible transit vehicles, but these are replacements not implementations.

Part C. 6. Title VI Notice to Beneficiaries

The Merrimack Valley Planning Commission (MVPC) operates its programs, services and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of **race, color or national origin** (including **limited English proficiency**) be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, the Federal Transit Administration, or both, prohibit discrimination on the basis of **age, sex and disability**. These protected categories are contemplated within MVPC's Title VI Program consistent with federal interpretation and administration. Additionally, MVPC provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

MVPC also complies with the Massachusetts Public Accommodation Law, M.G.L. Chapter 272, Sections 92a, 98, and 98a prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based upon **race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry**. Likewise, MVPC complies with the Governor's Executive Order 526, Section 4 requiring that all of its programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for shall be conducted without unlawful discrimination based upon **race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status** (including Vietnam-era veterans), or **background**.

Additional Information

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

Title VI Program Coordinator
Merrimack Valley Metropolitan Planning Organization
c/o Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830-5061
(978) 374-0519, extension 15
akomornick@mvpc.org

Complaint Filing

To file a complaint alleging a violation of Title VI or related federal nondiscrimination law, contact the Title VI Program Coordinator (above) within one hundred and eighty (180) days of the alleged discriminatory conduct.

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

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

Translation

English

If this information is needed in another language, please contact the MVMPO Title VI/Nondiscrimination Coordinator at 978-374-0519 ext. 15.

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 дискриминации 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

ប្រសិនបើលោក-អ្នកត្រូវការបកប្រែពីភាសានេះ សូមទាក់ទងអ្នកសម្របសម្រួលជំពូកទី6/គ្មានការរើសអើងរបស់ MVMPO តាមរយៈលេខទូរស័ព្ទ 978-374-0519 រួចភ្ជាប់ទៅលេខ 15។

Arabic

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

Part C. 7. Environmental Justice

Environmental Justice from a transportation perspective is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of transportation laws, regulations, and policies.

"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

MVMPO Merrimack Valley Transportation Committee Nondiscrimination Working Group

The MVMPO MVTC's purpose is to advise the MVMPO and participate in the MVMPO region's federally certified transportation planning process. Its membership provides for the involvement of local government officials, transportation professionals, transportation providers, and individuals experienced in economic development, freight, commuter rail, smart growth, environmental issues, regional planning, and other interest groups, ensuring broad representation and a geographical balance of its participants.

MVTC Nondiscrimination Working Group

The MVMPO is responsible for promoting, securing and evaluating public involvement in its transportation planning process. In particular, it is responsible for identifying and seeking meaningful participation of the region's minority and low-income (Environmental Justice) populations – and in working to reduce participation barriers for such populations.

The MVMPO's established EJ process includes identification of Census-based statistical areas within its region where:

- a) the percentage of minority populations exceeds the average percentage of minority population for the region as a whole;
- b) household incomes are 80% or less of area median income (AMI), and
- c) there are concentrations of households with limited English proficiency (LEP).

The MVMPO MVTC Nondiscrimination Working Group's purpose is to provide the MVMPO members, its MVTC and the public with the perspectives of individuals and organizations representing low-income, minority populations. It is also an opportunity for MVMPO staff and EJ stakeholders to exchange information, evaluate policies, plans and projects, and generate ideas for future projects.

Membership is comprised of at least five (5), and no more than ten (10), members with individual and/or collective knowledge and expertise in working with EJ populations on

- a) Disabilities
- b) Education
- c) English proficiency
- d) Elder Affairs
- e) Faith-based community service
- f) Minority advocacy
- g) Neighborhood organization
- h) Non-profit community development
- i) Public Health
- j) Veterans Affairs
- k) Workforce training and development

Working Group members would serve two-year terms.

The MVMPO staff administers the Nondiscrimination Working Group's membership, activities and reporting tasks according to the same process as the full MVTC. The MVMPO must approve any Nondiscrimination Working Group activities. The MVMPO staff will be responsible for preparing all Nondiscrimination Working Group notices, agendas, minutes and other materials. Any written and verbal communication from the Nondiscrimination Working Group is addressed to the MVMPO Chair.

Part C. 8. Equity Analysis

The following tables illustrate a geographic and social equity analysis of highway funding in the Merrimack Valley MPO region. Haverhill, Lawrence and Methuen are designated as Title VI and Environmental Justice (EJ) communities. The Title VI communities have Census Tracts with higher than average percentage of minorities than the regional average percentage and the same three communities are EJ communities with lower than average median income in some Census Tracts.

The following table shows the percent of population in Title VI / EJ communities relative to the percent of Federal highway funding programmed in the 2019 to 2023 TIP.

	Region Population (ACS 11 to 15)	Percent of Total Population	TIP Project Investment	Percent of Projects by Total Investment
Within Title VI / EJ community	189,490	55%	\$124,200,941	67%
Outside Title VI / EJ community	154,420	45%	\$61,504,653	33%
Total	343,910	100%	\$185,705,594	100%

This table illustrates consistency between the percent of population in Title VI / EJ areas and the percent of funding in those areas.

All of the Federal transit funding (100%) is considered to benefit Title VI and EJ communities because all of the MVRTA fixed routes originate in the Title VI / EJ communities of Haverhill or Lawrence, or provide connections to these routes. The paratransit service also provides access to and from the Title VI and EJ communities.

All of the MVMPO region communities have had, or are programmed to have, Federally funded projects from 2014 to 2023. (Looking at the tables that follow it appears that Rowley, which is not a Title VI / EJ community, does not have a federally funded project in the ten-year period, however it is included in Statewide projects listed in the Boston MPO Region TIPs in those ten years.)

The tables on the following pages show the projects included in the analysis for FFYs 2019 to 2023 and a summary chart showing the number of projects and the funding by community, and whether the community is a Title VI (high percentage of minorities) and/or an EJ (high percentage

of low-income households) community. This is followed by a table and analysis chart for projects programmed in FFYs 2014 to 2018.

The results show that for FFYs 2019 to 2023, 33% of the total number of projects are in Title VI and EJ communities. Considering the data for percent of funding, 67% of the funding is in Title VI communities and EJ communities.

The results show that for FFYs 2014 to 2018, 49% of the total number of projects are in Title VI communities and EJ communities. Considering the data for percent of funding, 56% of the funding is in Title VI communities and EJ communities.

All of the Transit funding (100%) is considered to benefit Title VI and EJ communities because all of the MVRTA fixed routes originate in Haverhill or Lawrence, or provide connections to these routes. The paratransit service also provides access to and from the Title VI and EJ communities. The only mappable transit project in the FFYs 2019 to 2023 TIP is the SGR Riverbank Stabilization project it is labelled on the relevant maps as RTD - 7129. The mappable transit projects in the FFYs 2014 to 2018 list are labelled on the 2014 to 2018 relevant maps as follows: RTD-4286 is the SGR Buckley Center and RTD-4284 is the SGR Maintenance Facility.

Equity Analysis Maps

[MVMPO: FFYs 2019 to 2023 TIP Projects by Community](#)

[MVMPO: FFYs 2014 to 2018 Projects by Community](#)

[MVMPO: FFYs 2019 to 2023 Statewide and Regional Target Highway Projects overlaid on Low Income and Minority Tracts](#)

[MVMPO: FFYs 2019 to 2023 Transit Projects and MVRTA Bus Routes overlaid on Low Income and Minority Tracts](#)

[MVMPO: FFYs 2014 to 2018 Statewide and Regional Target Highway Projects overlaid on Low Income and Minority Tracts](#)

[MVMPO: FFYs 2014 to 2018 Transit Projects and MVRTA Bus Routes overlaid on Low Income and Minority Tracts](#)

**FFYs 2019 to 2023 MVMPO Statewide and Regional Target Highway Funding
Projects by Community for Equity Analysis**

Community	Project Number	Project Description	Total Funding Programmed	FFY	Title VI Community	EJ Community
Amesbury	602418	Amesbury - Elm St. Reconstruction	\$11,178,124	19-20	No	No
Georgetown/ Boxford	607541	Georgetown/ Boxford Border to Boston Trail	\$1,874,028	2021	No	No
Georgetown/ Newbury	607542	Georgetown/ Newbury Border to Boston Trail	\$4,341,120	2022	No	No
Groveland	608298	Groveland Community Trail	\$2,365,973	2021	No	No
Haverhill	608027	Haverhill Bradford Rail Trail Ext.	\$1,131,000	2020	Yes	Yes
Haverhill	608761	Haverhill- Intersection Reconstruction Rt 108 (Newton Rd) at Rt 110	\$2,099,520	2021	Yes	Yes
Haverhill	608788	Haverhill- Roadway Reconstruction on North Avenue	\$3,894,590	2023	Yes	Yes
Haverhill	605306	Haverhill- Bridge Replacement I-495 over Merrimack (H-12-039)	\$98,988,655	2019to 2023	Yes	Yes

**FFYs 2019 to 2023 MVMPO Statewide and Regional Target Highway Funding
Projects by Community for Equity Analysis (Cont.)**

Community	Project Number	Project Description	Total Funding Programmed	FFY	Title VI Community	EJ Community
Lawrence	608930	Lawrence- Lawrence Manchester Rail Corridor (LMRC) Rail Trail	\$17,278,635	2023	Yes	Yes
MVRTA	MV0001	Flex to FTA for Cleaner Fuel Buses	\$698,541	2019	Yes	Yes
MVRTA	MV0003	Flex to FTA for Bike Racks	\$110,000	2019	Yes	Yes
Newbury/ Newburyport/ Salisbury	608494	Newbury/ Newburyport/ Salisbury Resurfacing Route 1	\$10,271,664	2021	No	No
Newburyport	608792	Newburyport SRTS	1,866,615	2019	No	No
North Andover	606159	Route 125 / Mass. Ave.	\$5,446,662	2019	No	No
North Andover	608095	North Andover- Corridor Rt.114 from Andover St. to Stop & Shop	\$16,816,717	2021 to 2022	No	No
Salisbury	602202	Salisbury Reconstruction of Route 1 (Lafayette Rd)	\$7,343,750	2023	No	No
	Total	Projects 19 to 23	\$185,705,594			

FFYs 2019 to 2023 MVMPO Equity Analysis Highway Funding

Community	Number of Projects	Percent of Projects	TIP Funding	Percent of Funding	Title VI Community	EJ Community
Amesbury	1	5%	\$11,178,124	6.5%	No	No
Andover	0	0%	\$0	0.0%	No	No
Boxford	1	5%	\$937,014	0.5%	No	No
Georgetown	2	10%	\$3,107,574	1.7%	No	No
Groveland	2	10%	\$2,365,973	1.3%	No	No
Haverhill	4	20%	\$106,113,765	56.9%	Yes	Yes
Lawrence	1	5%	\$17,278,635	9.3%	Yes	Yes
Merrimac	0	0%	\$0	0.0%	No	No
Methuen	0	0%	\$0	0.0%	Yes	Yes
Newbury	2	10%	\$5,594,448	3.0%	No	No
Newburyport	2	10%	\$5,290,503	2.8%	No	No
North Andover	2	10%	\$22,263,379	11.9%	No	No
Rowley	0	0%	0	0.0%	No	No
Salisbury	2	10%	\$10,767,638	5.8%	No	No
West Newbury	0	0%	0	0.0%	No	No
MVRTA	2	5%	\$808,541	0.4%	Yes	Yes
Total	21		\$185,705,594			
Percent of Projects in Title VI community =		33%	Percent of Funding in Title VI community =	67%		
Percent of Projects in EJ community =		33%	Percent of Funding in EJ community =	67%		

**FFYs 2014 to 2018 MVMPO Highway Funding
Projects by Community for Equity Analysis**

Community	Project Number	Project Description	Total Funding Programmed Each Year	FFY	Title VI Community	EJ Community
Amesbury	603682	Amesbury - Bridge Replacement, A-07-026, Route I-495 (NB & SB)	\$9,310,817	2015	No	No
Amesbury	602033	Route 150	\$4,643,054	2014	No	No
Amesbury	606669	Powwow Riverwalk	\$671,207	2017	No	No
Amesbury/ Salisbury	607737	Amesbury - Salisbury - Trail Connector at I-95	\$2,574,805	2018	No	No
Andover / Lawrence	606574	Andover - Lawrence - IM I-495	\$14,396,000	2016		
Andover / Methuen	607561	Andover - Methuen - IM I-93	\$13,932,707	2017		
Georgetown/ Newbury/ West New- bury/ New- buryport	606549	Georgetown/ Newbury/ West Newbury/ Newburyport/ IM on I-95	\$21,240,000	2015		
Groveland	605114	Rt 97 (School St & Salem St)	\$4,301,259	2015	No	No
Groveland	605114	Rt 97 (School St & Salem St)	\$2,040,502	2016	No	No
Haverhill	607573	Route 97 (Broadway)	\$6,526,912	2017	Yes	Yes
Haverhill	606161	Improvements on Main St (Rt. 125)	\$3,635,519	2016	Yes	Yes
Haverhill	605720	Haverhill Bradford Rail Trail	\$2,410,718	2014	Yes	Yes
Haverhill	605306	Haverhill - Bridge Replacement H-12-039, I-495 over Merrimack River	\$19,797,733	2018	Yes	Yes
Haverhill/ Merrimac/ Amesbury	608187	Haverhill-Merrimac-Amesbury- Guide Signs on I-495	\$4,451,342	2017		
Lawrence/ North Andover	608809	Lawrence - North Andover - Resurfacing Route 114	\$2,123,453	2018	Yes	Yes
Lawrence/ North Andover	607985	Lawrence / North Andover IM on I-495	\$7,788,000	2015		
Lawrence	608946	Haverhill Street (Route 110) and Ames Street	\$1,267,500	2018	Yes	Yes
Lawrence	608075	Lawrence St. / Park St. Intersection	\$1,265,561	2015	Yes	Yes

**FFYs 2014 to 2018 MVMPO Highway Funding
Projects by Community for Equity Analysis**

Community	Project Number	Project Description	Total Funding Programmed Each Year	FFY	Title VI Community	EJ Community
Lawrence	608261	Marston St & Ferry St/Commonwealth Ave	\$1,350,694	2017	Yes	Yes
Lawrence	608002	Safe Routes to School Bruce Elementary	\$2,016,148	2017	Yes	Yes
Lawrence	608407	Signals/ADA along Common & Lowell Sts	\$2,880,512	2016	Yes	Yes
Lawrence	607471	Union Crossing Pedestrian Improvements	\$579,375	2014	Yes	Yes
Methuen	605181	I-93/ Rt 110/ Rt 113 Rotary	\$27,458,183	2014	Yes	Yes
Methuen	607476	Methuen Rt 213 Resurfacing and Bridge Repairs	\$11,987,868	2016	Yes	Yes
Newburyport	606503	Clipper City Rail Trail	\$4,061,158	2015	No	No
North Andover	607776	North Andover - SRTS - N.A. Middle	\$1,086,000	2015	No	No
MVRTA	604585	Flex to FTA for MVRTA Cleaner Fuel Buses	\$645,840	2017	Yes	Yes
Salisbury	605020	Salisbury - Multi-use trail extension (Borders to Boston Trail), includes new bridge S-02-004	\$7,184,195	2018	No	No
Total Programmed Funding 2014 to 2018			\$181,627,062			

FFYs 2014 to 2018 MVMPO Equity Analysis Highway Funding

Community	Number of Projects	Percent of Projects	TIP Funding	Percent of Funding	Title VI Community	EJ Community
Amesbury	5	14%	\$17,396,261	10%	No	No
Andover	2	5%	\$14,164,354	8%	No	No
Boxford	0	0%	\$0	0%	No	No
Georgetown	1	3%	\$5,310,000	3%	No	No
Groveland	1	3%	\$6,341,761	3%	No	No
Haverhill	5	14%	\$33,854,663	19%	Yes	Yes
Lawrence	9	24%	\$21,513,517	12%	Yes	Yes
Merrimac	1	3%	\$1,483,781	1%	No	No
Methuen	3	8%	\$46,412,405	26%	Yes	Yes
Newbury	1	3%	\$5,310,000	3%	No	No
Newburyport	2	5%	\$9,371,158	5%	No	No
North Andover	3	8%	\$6,041,727	3%	No	No
Rowley	0	0%	\$0	0%	No	No
Salisbury	2	5%	\$8,471,598	5%	No	No
West Newbury	1	3%	\$5,310,000	3%	No	No
MVRTA	1	3%	\$645,840	0%	Yes	Yes
Totals	37		\$181,627,062			
Percent of Projects in Title VI communities =		49%	Percent of Funding in Title VI communities =		56%	
Percent of Projects in EJ communities =		49%	Percent of Funding in EJ communities =		56%	

FFYs 2019 – 2023 MVMPO Transit Projects Funding

FFY Year	Project Number	Project Description	Total Project Cost
2019	RTD0006769	Preventive Maintenance	\$3,250,095
2019	RTD0006770	ADA Operating Expense	\$1,456,420
2019	RTD0006771	Short Range Transit Planning	\$100,000
2019	RTD0006772	Operating Assistance	\$780,250
2019	RTD0007127	SGR Riverbank stabilization Design/Permitting	\$235,035
2019	RTD0007126	SGR Refurbish 4 vehicle lifts	\$400,000
2019	RTD0006785	Replace 1 Model Yr 2013 Support Vehicle	\$45,205
2019	RTD0007485 RTD0007429	Travel Training Video	\$36,000
2020	RTD0006773	Preventive Maintenance	\$3,347,595
2020	RTD0006774	Non-Fixed Route ADA Para Serv	\$1,500,110
2020	RTD0006775	Short Range Transit Planning	\$100,000
2020	RTD0006776	Operating Assistance	\$924,950
2020	RDT0007130	SGR Replace 1 Model Year 2013 supervisory vehicle	\$46,530
2020	RTD0006781	Replace 3 Model Yr 2007 buses delivery 2020	\$1,377,150
2020	RTD0007129	SGR Riverbank stabilization Construction	\$1,750,330
2021	RTD0006777	Preventive Maintenance	\$3,385,520
2021	RTD0006778	Non-Fixed Route ADA Para Serv	\$1,482,610

FFYs 2019 – 2023 MVMPO Transit Projects Funding (Cont.)

FFY Year	Project Number	Project Description	Total Project Cost
2021	RTD0006783	Operating Assistance	\$917,450
2021	RTD0006779	Short Range Transit Planning	\$100,000
2021	RTD0007131	SGR Replace 1 Model Yr 2016 supervisory vehicle	\$47,900
2021	RTD0006784	Replace 16 Model Yr 2015 vans with new	\$1,185,310
2022	RTD0006787	Preventive Maintenance	\$3,488,955
2022	RTD0006788	Non-Fixed Route ADA Para Serv	\$1,528,960
2022	RTD0006790	Operating Assistance	\$947,970
2022	RTD0006789	Short Range Transit Planning	\$100,000
2022	RTD0006791	Replace Model Yr 2009 buses delivery 2022 7 of 9	\$3,309,565
2023	RTD0007132	Preventive Maintenance	\$3,464,060
2023	RTD0007134	Non-Fixed Route ADA Para Serv	\$1,445,270
2023	RTD0007133	Operating Assistance	\$769,110
2023	RTD0007142	Short Range Transit Planning	\$100,000
2023	RTD0007136	Replace 6 Model Yr 2017 vans delivery 2023	\$471,260
2023	RTD0007135	Replace 2 Model Yr 2009 buses delivery 2023	\$973,910
		Total Transit Funding 2019 to 2023	\$39,067,520

FFYs 2014 – 2018 MVMPO Transit Projects Funding

FFY Year	Project Number	Project Description	Total Project Cost
2014	RTD0000837	Preventive Maintenance	\$2,936,000
2014	RTD0001469	ADA Operating Expense	\$1,335,175
2014	RTD0001710	Short Range Transit Planning	\$50,000
2014	RTD0001711	MVPC Technical Support to MVRTA	\$50,000
2014	RTD0005645	Operating Assistance	\$2,006,470
2015	RTD0002279	ADA Operating Expense	\$1,337,045
2015	RTD0002280	Preventive Maintenance	\$3,034,720
2015	RTD0002690	Operating Assistance	\$2,128,920
2015	RTD0003650	Short Range Transit Planning	\$50,000
2015	RTD0003651	MVPC Technical Support to MVRTA	\$50,000
2015	RTD0004281	Purchase 7 Replacement Buses	\$2,391,200
2015	RTD0004283	Acquire Support Vehicles	\$72,000
2015	RTD0004286	SGR Buckley Center	\$12,000
2015	RTD0004284	SGR Maintenance Facility	\$58,800
2015	RTD0004287	Purchase 5 Replacement Vans	\$256,000

FFYs 2014 – 2018 MVMPO Transit Projects Funding (Cont.)

FFY Year	Project Number	Project Description	Total Project Cost
2016		ADA Operating Expense	\$1,311,195
2016		Preventive Maintenance	\$3,131,330
2016		Operating Assistance	\$684,350
2016		Short Range Transit Planning	\$50,000
2016		MVPC Technical Support to MVRTA	\$50,000
2016		Replace 5 Model Yr 2011 Paratransit Vehicles	\$320,000
2016		Acquire Support Vehicles	\$90,000
2017	RTD0004541	ADA Operating Expense	\$1,371,830
2017	RTD0004542	Preventive Maintenance	\$3,054,810
2017	RTD0004552	Operating Assistance	\$1,257,050
2017	RTD0004550	Short Range Transit Planning	\$100,000
2017	RTD0004932	Replace 7 Model Yr 2004 Buses with new	\$2,989,000
2017	RTD0004919	Replace Parking Facilities Revenue Collection Equipment	\$300,000
2017	RTD0004989	Bus/ Van Mobile Location Project	\$300,000

FFYs 2014 – 2018 MVMPO Transit Projects Funding (Cont.)

FFY Year	Project Number	Project Description	Total Project Cost
2017	RTD0004540	Refurbish Engines on 8 Model Year 2011 Buses	\$280,000
2017	RTD0004990	Replace 1 Model Yr 2013 Support Vehicle	\$46,350
2018	RTD0005637	ADA Operating Expense	\$1,413,370
2018	RTD0005638	Preventive Maintenance	\$3,152,905
2018	RTD0005639	Refurbish Engine/ trans 8 model year 2012 buses	\$264,000
2018	RTD0005642	Operating Assistance	\$643,010
2018	RTD0005643	Short Range Transit Planning	\$100,000
2018	RTD0005656	Replace 6 Model Yr 2004 buses delivery 2018	\$2,689,500
2018	RTD0005662	Replace 1 Model Yr 2013 Support Vehicle	\$47,750
		Total Transit Funding 2014 to 2018	\$39,414,780

List of Appendices in Separate File

The following Appendices can be found in a separate file titled “Appendices to Final MVMPO 2019 to 2023 TIP May 2018”

- Appendix A Other Regional Priority Bridge Projects
- Appendix B Other Regional Priority Roadway Projects
- Appendix C Transportation Evaluation Criteria Summary
- Appendix D Sample Project Evaluation Worksheet
- Appendix E Greenhouse Gas (GHG) Monitoring and Evaluation
- Appendix F Completed Highway and Transit Projects GHG Summary
- Appendix G List of Acronyms
- Appendix H Key to Maps Showing Locations of Transportation Projects
- Appendix I Comments Received on Draft MVMPO FFYs 2019 to 2023 TIP