

TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

2017 - 2021

FOR THE
METROPOLITAN PLANNING ORGANIZATION
PIONEER VALLEY REGION,
MASSACHUSETTS

Draft



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PREFACE

The Pioneer Valley Region

The Pioneer Valley Region is comprised of 43 cities and towns covering approximately 1,180 square miles. Home to over 626,000 residents, the Pioneer Valley is the fourth largest metropolitan area in New England. The map on the following page references the Pioneer Valley Region.

TIP Format and MPO Endorsement

The FFY 2017-2021 TIP has been prepared with completely separate components of the document that are subject to federal review and approval and components that are not. This distinction of a “federal component” was the firm position of the Massachusetts Department of Transportation (MassDOT) as a means to avoid potential problems with adequately satisfying federal financial constraint requirements with the non-federal aid component of the TIP. Although a non-federal component of the TIP is represented, it is understood that this component is not subject to Metropolitan Planning Final Rule 23 CMR 450 section 324, therefore federal review and approval is not required.

The non-federal component is provided for the benefit of the MPO and the constituent communities as a representation of an agreed upon listing of improvement projects to be undertaken entirely with state provided resources. All projects included in the Non Federal Aid (NFA) section of the TIP must be eligible to receive federal funds and be located on a functionally classified road. The separation of federal aid projects from non-federal aid projects by no means represents a lack of commitment by the state to fund all projects specifically programmed in the document. Assuming that adequate funds are available from federal and/or state sources, it can be fully expected that the following project listings can and will be implemented over the FFY 2017-2021 time frame. Pending federal guidance approving the inclusion of non-federal aid projects without secured bonded resources in each year, the TIP will be amended to reinstate all non-federal aid projects into the document endorsed for federal review and approval.

MassDOT Commitment to Funding all Designed and Permitted Projects

The MassDOT has committed to funding all transportation improvement projects that will be ready for advertisement in FFY 2017 and beyond. In response to this commitment, Pioneer Valley local officials in cooperation with regional and state officials from the MassDOT have made a concerted effort to develop a TIP project listing that is truly representative of the projects that will realistically be ready for advertisement in FFY 2017. Funding targets for the Pioneer Valley Region have been issued by MassDOT identifying potential resources for each year of the TIP.



I.GENERAL SUPPORT INFORMATION

INTRODUCTION

The Transportation Improvement Program (TIP) is a requirement of the Metropolitan Transportation Planning Process as described in the Metropolitan Planning Final Rule 23 CFR 450 section 324. This regulation developed by the Federal Department of Transportation defines the Transportation Improvement Program as:

“A staged, multiyear, intermodal program of transportation projects which is consistent with the metropolitan transportation plan.”

The Pioneer Valley TIP is a Five-year schedule of priority highway, bridge, transit, and multimodal projects identified by year and location complete with funding source and cost. The TIP is developed annually and is available for amendment and adjustment at any time. Each program year of the TIP coincides with the Federal Fiscal Year calendar, October 1 through September 30. All TIPs and amendments are consistent with the goals and objectives of the Regional Transportation Plan for the Pioneer Valley region. This TIP is financially constrained.

FEDERAL AUTHORIZATION

FAST Act, Fixing America's Surface Transportation (Pub. L. No. 114-94), was signed into law on December 4, 2015. Funding surface transportation programs at over \$305 billion for fiscal years (FY) 2016 through 2020, Fast act replaced MAP-21 replaces which was enacted in 2012. Under the Fast Act all Metropolitan Planning Organizations are required to incorporate eight planning factors. The eight planning factors are as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility of people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhancing travel and tourism

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, included provisions to make the Federal surface transportation more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the

system and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act builds on the changes made by MAP-21.¹

The FAST Act specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation.

National goal areas continue to be a priority under the FAST Act and address the following areas:

Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.

Congestion reduction—To achieve a significant reduction in congestion on the NHS.

System reliability—To improve the efficiency of the surface transportation system.

Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Reduced project delivery delays—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

CONFORMITY WITH THE REGIONAL TRANSPORTATION PLAN

All projects in the TIP come from the 2017 Regional Transportation Plan (RTP). All regionally significant projects included in the TIP were previously included in the air quality analysis completed for the conforming RTP. Because projects in the TIP come from the conforming RTP and all regionally significant RTP projects for 2017 through 2021 (both Federal and Non-Federal Aid) are programmed in the TIP, the same air quality analysis utilized for the RTP can be used for the TIP. Since most all of Massachusetts (with limited exceptions) was designated on 5/21/12 by the United States Environmental Protection Agency as "unclassifiable/attainment" for the latest ozone standard, a conformity determination for the Pioneer Valley 2017-2021 TIP is only required for Carbon monoxide. Further details and background information are provided on page 83.

¹ <https://www.fhwa.dot.gov/fastact/summary.cfm>

METROPOLITAN PLANNING ORGANIZATION

The Pioneer Valley Metropolitan Planning Organization (MPO) is responsible for developing the TIP. The MPO is comprised of ten members including four independently operating agencies and six locally elected officials:

Name	Title
Stephanie Pollack	Secretary and CEO of the Massachusetts Department of Transportation
Thomas Tinlin	Administrator of the Massachusetts Department of Transportation Highway Division
Walter Gunn	Chairman of the Pioneer Valley Executive Committee
Mary MacInnes	Chairman of the Pioneer Valley Transit Authority Advisory Board
Mayor Domenic Sarno	Mayor of Springfield
Mayor Alexander Morse	Mayor of Holyoke
Mayor Richard Cohen	Mayor of Agawam
Mayor David Narkewicz	Mayor of Northampton
George Archible	Belchertown Board of Selectmen
Marcus Boyle	Hatfield Board of Selectmen

Alternates

Mayor Richard Kos	Mayor of Chicopee
Mayor Daniel M. Knapik	Mayor of Westfield
Vacant	
Vacant	
Vacant	

Ex-Officio

Pamela Stephenson	Federal Highway Administration (non-voting member)
Mary Beth Mello	Federal Transit Administration (non-voting member)
Rick Sullivan	Economic Development Council of Western Massachusetts (non-voting member)
Mary MacInnes	Administrator of the Pioneer Valley Transit Authority (non-voting member)
James Czach	Chairman – Pioneer Valley Joint Transportation Committee (non-voting member)

DEVELOPMENT OF THE TIP

As the lead planning agency for the MPO, the PVPC accepts the responsibility for developing the TIP in a cooperative process with members of the MPO and the general public. The final TIP is voted on for endorsement at a formal meeting of the MPO. The endorsed TIP project listing is included in the State Transportation Improvement Program (STIP) verbatim and requires endorsement by the Governor.

The MPO relies on a transportation advisory committee to carry out the cooperative process during TIP development. The Joint Transportation Committee (JTC) is a group of community appointed officials, MPO member representatives, public and private transportation providers, citizens, and special interest groups and agencies. The JTC establishes and recommends to the MPO procedures for submitting, prioritizing and selecting projects for the TIP. PVPC staff provides the technical support to conduct the TIP development activities for the JTC.

Below is a general outline of steps taken during the TIP development process.

- Project proponents (communities, MPO members, agencies) submit projects through the process outlined in Chapter 2 of the Massachusetts Project Development & Design Guidebook (2006)
- Projects are prioritized based on evaluation criteria by MPO staff, JTC representatives, and MassDOT Highway Division staff, and MassDOT staff at a posted meeting open to all.
- The State (thru MassDOT) provides funding targets for all 13 Regional Planning Agencies in Massachusetts.
- JTC reviews and recommends projects by Transportation Evaluation Score (TEC) and readiness to the MPO.
- Draft TIP project listings are prepared by the MPO staff and distributed for review and comment to MPO members.
- MPO meets to make final decisions on the composition of the TIP and to recommend the Draft TIP for general public release as required by the MPO Public Participation Plan for the Pioneer Valley Region.
- Final Draft TIP is distributed for review, consultation and comment in accordance with the adopted MPO Public Participation Plan.
- Public meetings and news releases are conducted to promote public involvement and consultation.
- Comments are compiled and addressed where appropriate.
- Final TIP developed for the JTC's consideration and their recommendation to MPO.
- MPO meets to vote on final adjustments and endorsement of the TIP.
- Endorsed Regional TIPs are compiled by MassDOT to create the STIP.
- Secretary and CEO of MassDOT endorse the STIP (on behalf of the Governor) and submits the STIP to federal agencies for review and approval.
- Federally approved STIP is ready for state implementation (project advertisement).

Amendments and adjustments to the TIP are made on an as needed basis with the additional public review and input for formal amendments only.

CONGESTION MANAGEMENT PROCESS (CMP)

The Pioneer Valley Congestion Management Process (CMP) formerly the Congestion Management System (CMS) is an on-going, systematic process designed to improve transportation in the region by providing information on the location, severity and extent of congested corridors and intersections. Findings of the CMP report are used to assist in the selection of projects to be prioritized for TIP consideration, as well as assist in the prioritization of projects to be included in this document.

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>

PROJECT PRIORITY CRITERIA AND SELECTION

MassDOT developed a process and set of criteria to prioritize the region's TIP projects which was modified and endorsed by the MPO. In 2014 PVPC with the assistance of the JTC completed and comprehensive update to the TEC for the PVMPO. The purpose of the update was to bring the TEC up to the current set forth by MAP -21. All projects included in the TIP have been evaluated and assigned a priority value or rating. This process is used as a management tool to identify projects of regional priority and program them accordingly in the TIP.

TEC SCORING SUMMARY

System Preservation, Modernization and Efficiency	Livability	Mobility	Smart Growth and Economic Development	Safety and Security	Environment and Climate Change	Quality of Life	Environmental Justice
8	Improves Substandard Pavement Design is consistent with Complete Streets policies	4	2	7	Preserves floodplains and wetlands 1	Enhances or preserves greenways and blueways 1	Reduces and limits disproportionate impacts on EJ community 1
6	Improves Intersection Operations Provides multi-modal access to a downtown, village center, or employment center	6	1	Promotes safe and accessible pedestrian and bike environment 5	Promotes green infrastructure and low impact development to reduce stormwater impacts 2	Improves access to parks, open lands and open space 1	Improves transit for EJ populations 2
5	In a Congestion Management Process Area Reduces auto-dependency	7	0.5	Improves emergency response 4	Reduced impervious surfaces 0.5	Improves access to jobs 2	Creates an EJ Burden -5
	Project serves a targeted development site 2		Supports mixed-use downtowns and village centers 0.5		Protects or enhances environmental assets 0.5	Preserves historical and cultural resources 0.5	
	Completes off-road bike and ped network 3		Improves Intermodal Connections 4		Supports Brownfield redevelopment 0.5	Preserves prime agricultural land 0.5	
			Reduces congestion on freight routes 2		Improves air quality 1	Provides safe and reliable access to education 0.5	
					Reduces CO2 emissions 1	Supports designated scenic byways 0.5	
					Promotes mode shift 1	Implements ITS Strategies 2	
					Improves fish and wildlife passage 1	Improves Network Wayfinding 1	
					Supports Green Communities 0.5	Health Impact Assessment 1	
					Improves storm resilience 3	Length of Time on TIP 1	
Maximum Score					16	12	11

PROJECT INITIATION

The Project Needs Form (PNF) is the first document completed at the start of the project development process. The PNF provides sufficient material to understand the transportation need(s), and results in one of the following three outcomes:

- Verification of the problem, need, or opportunity to enable it to move forward into design;
- Determination of the level of further project planning warranted; or,
- Dismissal of a project from further consideration.

The next step in the project development process involves summarizing the findings and direction defined in a Project Initiation Form (PIF) used by the Project Review Committee (PRC) and the MPO for project review and evaluation. The PIF will include the following information to be documented by the proponent:

- Project Type and Description, including locus map
- Summary of Project Planning Process
- Preliminary identification of the Project Category for review and programming purposes
- Definition of the proposed project management responsibility
- Definition of an interagency (including local boards) coordination plan
- Definition of a public outreach plan for the design process
- Project Need Form or Project Planning Report as an attachment
- Transportation Evaluation Criteria as an attachment

The Project Needs and Project Information Form can be found at

<http://www.massdot.state.ma.us/highway/Departments/ProjectManagement/ProjectReviewCommittee.aspx>

MASSDOT GREENDOT POLICY

MassDOT launched its GreenDOT initiative on June 2, 2010. GreenDOT was developed to assure a coordinated approach to sustainability and to integrate sustainability into the responsibilities and decision-making of all MassDOT employees. The following three mutually-reinforcing goals form the foundation of GreenDOT:

- Reduce greenhouse gas (GHG) emissions
- Promote the healthy transportation modes of walking, bicycling, and public transit
- Support smart growth development

The initiative is a comprehensive response to a range of state and MassDOT laws, policies and initiatives including: the Global Warming Solutions Act, the Green Communities Act, the Healthy Transportation Compact, Leading by Example, YouMoveMassachusetts, and Complete Streets. The Global Warming Solutions Act requires Massachusetts to reduce economy wide GHG emissions: 10% -25% below 1990 levels by 2020 and an 80% reduction below 1990 levels by 2050. The transportation sector is the largest GHG emitter, producing 31% of 1990 emissions and

projected to produce 38% of 2020 emissions. GreenDOT also incorporates a statewide mode shift goal to triple the percentage of trips made by bicycling, transit and walking.

GreenDOT is also comprised on an additional by seven goals that can be tied to regional planning efforts. In the Pioneer Valley region, these goals and their recommended strategies have been incorporated into the new Transportation Evaluation Criteria (TEC) used to prioritize transportation improvement projects included as part of the TIP. The Tec is described in greater detail in Chapter 10 of the RTP. Table 1 summarizes the seven GreenDOT goals, their associated strategies and how they are addressed in the TEC for the Pioneer Valley.

Table 1 Integration of GreenDOT Goals into TIP

Policy/Planning - Design a Multi-Modal Transportation System, Triple Mode Share of Bicycling, Transit, and Walking, & Promote Healthy Transportation and Livable Communities	
Associated Strategy	RTP/TEC Integration
Providing secure and/or covered bicycle parking and shared used paths	Projects are eligible to receive up to 12 points for bicycle and pedestrian improvements in the "Livability" category. Projects receive 1 point for providing bicycle amenities such as bicycle parking.
Improving access to transit and other vital community services	Projects are eligible to receive up to 4 points by improving access to transit.
Designing complete street projects with municipalities	Complete Streets consistency is worth up to 3 points.
Encouraging Safe Routes to Schools projects	Projects that provide safe and reliable access to education receive 0.5 point.
Incorporating public health impacts in the transportation planning process	Projects that complete a Health Impact Assessment will receive 1 point.
Coordinating on regional and statewide bicycle and pedestrian planning efforts.	Many "Livability" subcategories in the TEC support regional and statewide bicycle and pedestrian planning efforts.
Supporting Bike Share programs locally and regionally.	Projects can receive 2 points for being part of a locally adopted Bike Share Program.
Prioritizing critical pedestrian and bicycle network gaps, i.e. Bay State Greenway	Critical Gaps are identified as part of PVPC's Regional Bicycle Linkages Map. Projects that provide connections to regional bikeways/walkways receive 1 point.
Improving bicycle and pedestrian counts	PVPC collects bicycle and pedestrian movements as part of all intersection turning movement counts.
Air - Reduce Greenhouse Gas Emissions & Improve Air Quality	
Associated Strategy	RTP/TEC Integration
Developing projects to improve air quality	Projects that demonstrate improvements to air quality can receive up to 1 point.
Analyzing GHG reduction strategies in transportation improvement projects and tracking progress	PVPC performs GHG analysis for all proposed RTP and TIP projects.
Setting regional goals for reducing VMT (travel demand)	Projects that demonstrate a significant reduction in single occupant vehicle use will receive 1 point.
Analyzing fleet fuel usage and supporting	The RTP supports the use of alternatively fueled

retrofits and procurement of alternative fuel vehicles	vehicles. PVTA has hybrid transit vehicles and is in the process of purchasing electric buses.
Supporting alternative fuels vehicle infrastructure	PVTA is in the process of purchasing an electric vehicle charging station.
Increasing bus and transit route efficiency	The PVPC has an ongoing task in its UPWP to study transit route efficiency.
Promoting anti-idling policies and educational outreach	Not specifically addressed in the TEC but included as a Need in the RTP

Table 1 Integration of GreenDOT Goals into the TIP (cont.)

Energy - Consume Less Energy & Increase Reliance on Renewable Energy	
Associated Strategy	RTP/TEC Integration
Evaluating outdoor lighting and traffic signal systems, and retrofitting where feasible	Upgrades to traffic signal equipment can be worth up to 6 points.
Planning for the implementation of energy efficient measures and renewable energy projects	The RTP incorporates strategies from the Pioneer Valley Clean Energy Plan.
Land - Minimize Energy and Chemicals Used in Maintenance & Enhance Ecological Performance	
Associated Strategy	RTP/TEC Integration
Implementing sustainable stormwater management	Up to 2.5 points can be received through the use of green infrastructure and the reduction of impervious surfaces to manage stormwater.
Protecting and restoring native landscaping, woodland, and urban tree coverage	Projects that protect or enhance environmental assets receive 0.5 point.
Implementing sustainable road salt and sanding practices	Included as a strategy in the RTP.
Designing landscapes for wildlife habitat restoration, safe migration, and accommodation	Improvements to stream crossings and culverts that improve fish and wildlife passage receive 1 point.
Reducing outdoor light pollution	Not specifically addressed.
Advocating for urban trees into Complete Streets designs/studies	Complete Streets consistency is worth up to 3 points.
Materials - Improve Lifecycle Impacts of Investments & Purchase Environmentally Preferred Products	
Associated Strategy	RTP/TEC Integration
Planning for climate resiliency in the development of projects	Projects that preserve floodplains receive 0.5 point. Projects that improve storm resilience in areas prone to flooding receive up to 3 points.
Supporting the use and identify appropriate applications for warm mix and recycled content paving materials	Not specifically addressed.
Waste - Achieve Zero Solid Waste Disposal	
Associated Strategy	RTP/TEC Integration
Identifying projects with zero construction waste diversion goals	Not specifically addressed.
Implementing regional litter prevention programs with their respective municipalities	Not specifically addressed.
Water - Use Less Water & Improve Ecological Function of Water Systems	

Associated Strategy	RTP/TEC Integration
Planning projects that minimize impacts on surface water and enhance wetlands flood storage capacity	Projects that preserve wetlands receive 0.5 point.
Considering sea level rise and storm surge projections in project planning	Projects that improve storm resilience in areas prone to flooding receive up to 3 points.

PROJECT SELECTION AND PROGRAMMING

The project priority ratings were applied in conjunction with a project's anticipated advertisement schedule. The funding targets provided by the MassDOT to develop the four-year program of the TIP were applied for each year in order to develop this fiscally constrained document. A project was not considered for scheduling in a year earlier than its anticipated schedule regardless of the priority rating. For projects that are expected to be ready to go in the first year of the TIP the top priority projects for that year were funded under the federal aid categories, since these funds are most secure. Once the federal aid funds were completely programmed, non-federal aid funds were programmed to priority projects. This initial assignment procedure was applied to each year of the TIP and is subject to change as the TIP is developed and refined by members of the MPO and the JTC.

AMENDMENT/ADJUSTMENT OF THE TIP

For the purposes of project selection and programming, amendment or adjustment to the TIP can be conducted at any time. Amendment of the TIP consists of addition of a project not previously programmed, the advancement of a Year 3 project through Year 4 or a significant adjustment to project costs. Amendment requires formal MPO action, and must follow the requirements outlined in the Pioneer Valley Public Participation Plan (PPP). Additional information regarding the PPP can be found at <http://www.pvpc.org/content/pioneer-valley-public-participation-plan>

Program adjustments can be conducted without formal MPO action in order to minimize constraints on programming projects. Minor adjustments could include such actions as moving projects between Year 1 and Year 2, and minor fluctuations in project description, costs and funding source. This action can be accomplished through an agreed upon administrative action.

DESCRIPTION OF FUNDING SOURCES

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

Surface Transportation Program (STP) - This program is for the maintenance and construction of the federal aid system, all roads other than those functionally classified as local or rural minor collectors. Funds may also be flexed for use on bridge, transit capital, and bike or trail facilities. A minimum amount of 10 percent must be set aside for both safety construction activities and for transportation enhancements. The remaining STP balance is for use throughout the state. Funding: federal - 80%, state - 20%.

Transportation Alternatives Program (TAP) - The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and

enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. Funding: federal - 80%, state - 20%

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

Highway Safety Improvement Program (HSIP) – The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The goal of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. Funding: federal - 80%, state - 20%. HSIP can be funded 90/10 and even 100% federal in certain circumstances.

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

National Highway Performance Program (NHPP) - The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS. NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Funding: federal - 80%, state - 20%.

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

Section 115 Funds Included in the Transportation bill as congressional earmarks, each year the earmarks are given a designated funding category. In FFY2005 the funding designation for these projects was Section 115 Funds. Funding: federal – 100%, state – 0%

Section 117 Funds Included in the Transportation bill as congressional earmarks, each year the earmarks are given a designated funding category. In FFY2006 the funding designation for these projects was Section 117 Funds. Funding: federal – 100%, state – 0%

Section 129 Funds Congressional Earmarks for FFY 2008. Funding: federal – 100%, state – 0%

Section 125 Funds Congressional Earmarks for FFY 2009. Funding: federal – 100%, state – 0%

In compliance with FHWA guidelines projects with federal earmarks are only programmed in the FY 2014 to FY 2017 TIP if the total funding is adequate for project implementation. The remaining earmarked projects will be included in appendix Z for informational and tracking purposes.

Non-Federal Aid (NFA) - This funding category contains all those projects not receiving federal funds. Various categories of state funding are included in this group including bikeways, State Aid

(Chapter 90), and highway construction and maintenance (Chapter 497). This category is included in the TIP for informational purposes only. Funding: federal - 0 %, state - 100 %.

Section 5339 Bus and Bus Facilities – (5309 SAFETEA-LU) Program provides capital funding to replace, rehabilitate, and purchases buses and related equipment and to construct bus related facilities. Funding: Federal - 80%, State - 20%

Section 5307 Capital - This program provides grants to Urbanized Areas¹ (UZA) for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances. These funds constitute a core investment in the enhancement and revitalization of public transportation systems in the nation's urbanized areas, which depend on public transportation to improve mobility and reduce congestion. Federal Share is 80% for Capital Assistance, 50% for Operating Assistance, and 80% for Americans with Disabilities Act (ADA) no-fixed-route paratransit service, using up to 10% of a recipient's apportionment.

Section 5310 - Section 10 pertains to transportation facilities meeting special needs of the elderly and disabled. Funds allocated under Section 16(b) (2) provide private non-profit corporations and associations with grants and loans to improve the mobility of the elderly and disabled. In Massachusetts, 16(b) (2) funds are administered at the state level by the MASSDOT. These funds typically are used for the purchase of capital items, including lift-equipped vans. Mobility Assistance Program (MAP) funds are intended for use by public agencies, such as municipal councils on aging and the Pioneer Valley Transit Authority (PVRTA) to provide van service to elderly and/or disabled persons.

Section 5311 - These funds are made available exclusively for public transportation projects outside the urbanized areas. Both capital and operating expenses are eligible.

TRANSPORTATION SYSTEM OPERATING AND MAINTENANCE COSTS

The FFY 2017-2021 TIP is consistent with the Regional Transportation Plan (RTP) for the Pioneer Valley Region. Tables 1 and 2 presents the estimates outlined in the RTP of annual expenditures associated with operating and maintaining the transportation system. These estimates represent past expenditures and do not reflect costs associated with maintaining a constant level of system performance.

Table 2 Transportation Operating and Maintenance Expenditures

	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	GRAND TOTAL
Total Available for Programming in the Pioneer Valley RTP	Total	Total	Total	Total	Total	Total
	\$ 420,177,748	\$ 426,618,217	\$ 520,221,270	\$ 582,504,200	\$ 623,968,064	\$ 2,573,489,499
<i>Statewide Interstate Maintenance</i>	\$ 29,750,182	\$ 28,157,124	\$ 35,185,257	\$ 39,841,190	\$ 42,920,276	\$ 175,854,029
<i>Statewide NHS</i>	\$ 19,572,131	\$ 18,955,373	\$ 23,686,712	\$ 26,821,085	\$ 28,893,926	\$ 117,929,227
<i>Statewide Bridge</i>	\$ 105,433,448	\$ 102,111,025	\$ 127,598,354	\$ 144,482,963	\$ 155,649,185	\$ 635,274,975
<i>Statewide Infrastructure</i>	\$ 4,219,341	\$ 4,086,381	\$ 5,106,359	\$ 5,782,064	\$ 6,228,925	\$ 25,423,070
<i>Remaining Statewide Programs</i>	\$ 96,040,886	\$ 101,493,887	\$ 126,827,176	\$ 143,609,738	\$ 154,708,473	\$ 622,680,160
<i>NFA Bridge Preservation</i>	\$ 54,049,500	\$ 54,860,243	\$ 55,670,985	\$ 56,481,728	\$ 57,292,470	\$ 278,354,926
<i>Regional Discretionary Funding</i>	\$ 111,112,260	\$ 116,954,184	\$ 146,146,427	\$ 165,485,432	\$ 178,274,809	\$ 717,973,112

Source: Regional Transportation Plan, updated 2016

Table 3 Transit Operating and Maintenance Expenditures

Estimated Transit Operating Revenues 2016 - 2040						
	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Grand Total
State Contract Assistance	\$ 125,723,298	\$ 145,747,760	\$ 168,961,600	\$ 195,872,803	\$ 227,070,262	\$ 863,375,723
Local Assessments	\$ 43,637,997	\$ 49,372,389	\$ 55,860,326	\$ 63,200,831	\$ 71,505,940	\$ 283,577,483
5307 Federal Urbanized Area Formula **	\$ 53,120,529	\$ 57,917,522	\$ 62,393,619	\$ 67,215,646	\$ 72,410,341	\$ 313,057,657
5339 Federal **	\$ 3,614,988	\$ 3,937,914	\$ 4,242,253	\$ 4,570,110	\$ 4,923,307	\$ 21,288,572
5310 Federal Elderly & Disabled	\$ 2,704,105	\$ 2,913,090	\$ 3,138,225	\$ 3,380,759	\$ 3,642,038	\$ 15,778,217
Farebox	\$ 41,119,964	\$ 45,399,763	\$ 50,125,006	\$ 55,342,057	\$ 61,102,103	\$ 253,088,893
Advertising, other revenue	\$ 2,948,172	\$ 3,255,020	\$ 3,593,805	\$ 3,967,851	\$ 4,380,829	\$ 18,145,677
Available for Programming in Pioneer Valley RTP	\$ 272,869,053	\$ 308,543,458	\$ 348,314,834	\$ 393,550,057	\$ 445,034,820	\$ 1,768,312,222
Estimated Capital Revenues						
	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Grand Total
RTACAP	\$ 20,285,825	\$ 22,314,408	\$ 24,545,848	\$ 27,000,433	\$ 29,700,476	\$ 123,846,990
ITC Cap Program	\$ 1,145,277	\$ 1,259,805	\$ 1,385,785	\$ 1,524,364	\$ 1,676,800	\$ 6,992,031
Federal Matching grants	\$ 63,410,806	\$ 69,751,887	\$ 76,727,075	\$ 84,399,783	\$ 92,839,761	\$ 387,129,311
Total Transit Capital Funds for Programming in PV RTP	\$ 84,841,908	\$ 93,326,099	\$ 102,658,709	\$ 112,924,579	\$ 124,217,037	\$ 517,968,332
Grand Total of Revenue	\$ 357,710,961	\$ 401,869,557	\$ 450,973,543	\$ 506,474,636	\$ 569,251,857	\$ 2,286,280,554

Source: Regional Transportation Plan, updated 2016

II. PUBLIC PARTICIPATION SUMMARY AND CHANGES

The DRAFT FFY 2017-2021 TIP underwent a public review and comment period consistent with the Pioneer Valley Metropolitan Planning Organizations Public Participation Process. This began June 24, 2016 and continued until July 24, 2016. During this time, comments were received from communities, JTC, PVTA, PVPC, MassDOT, and FHWA. A public hearing was held on June 10, 2015 as part of the JTC meeting. Below is a summary of the comments received during the public review and comment period.

Table 4 Comments Received During Public Review

Comment By	Project	Comment	Date Received	Action Taken

In addition to the above changes, the Pioneer Valley Transit Authority requested that the following be included: The Pioneer Valley Transit Authority, the FTA Section 5307(c) applicant, has consulted with the Pioneer Valley Planning Commission and concurs that the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for regular Section 5307, Urbanized Area Formula Program, grant application including the provision for public notice and the time established for public review and comment.

For FTA projects that are not routine; i.e. Section 5307 applications that required environmental assessment or an environmental impact statement, the public involvement provided herein for TIP review is not sufficient. Additional public involvement will be required by FTA prior to grant approval, as presented in the joint FHWA/FTR environmental regulations, 23 CFR-Part 771.

The Federal Aid (FA) and Non-Federal Aid (NFA) elements were separated into two components. The FA component of the TIP was endorsed by the MPO and the NFA component is included in the main body of the TIP, however, is not subject to federal planning rules.

III. FEDERAL COMPONENT

PIONEER VALLEY MPO ENDORSEMENT

CERTIFICATION OF THE 3-C PLANNING PROCESS

In accordance with the Metropolitan Planning Final Rule, the Pioneer Valley MPO has completed its review and hereby certifies that the conduct of the 3-C Transportation Planning Process complies with the requirements of CFR 450.334 and includes activities to support the development and implementation of this TIP, the Regional Transportation Plan, and subsequent project development activities, as necessary and to the degree appropriate.

To reinforce this self certification, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) conducted a certification review of the Pioneer Valley MPO planning process in December 2011. The two day on-site review was preceded by a desk audit of the major planning documents completed as part of the planning process. Based on the certification review, the transportation planning process for the Pioneer Valley region was found to substantially meet the requirements of 23 CFR 450 Subpart C and 49 CFR 613.

310 CMR 60.05: GLOBAL WARMING SOLUTIONS ACT REQUIREMENTS

Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation Endorsement

FUNDING INFORMATION

FEDERAL AID TARGETS

The MassDOT provided the revised PVPC federal aid highway funding targets for the region on April 3, 2015. The targets are provided for FFYs 2017 through 2019 and represent both the federal aid portion and respective state match. (See Appendix A for additional information)

Federal financial resources for transit are projected using appropriated amounts provided by the FTA for the funding categories of Sections 5307 and 5311. Section 5309 funds are based on estimates of what will be reasonably available. Due to the discretionary nature of these categories, project line items are maintained in the fourth year of the TIP until an actual grant award is tendered. Section 5310 is programmed through the state and is awarded on a discretionary basis. Projections are based on past experience and the funding level provided by the State.

FEDERAL AID FINANCIAL CONSTRAINT

The federal aid element of the TIP is financially constrained according to the definition in Federal Register 23 CFR Part 450.324. The federal aid projects programmed for this region reasonably meet the federal aid funding targets provided for the region. Only projects for which funds can reasonably be expected have been included. Table 5 (highway) and Table 6 (transit) show both these target amounts and the amounts programmed for highway projects during fiscal years 2017-2021. Projects that are not charged against the funding targets are not presented in the table. These projects include: Statewide items; and special funding projects. Table 4 shows the projected transit funds for FFY 2017 – 2021.

During the development of the TIP PVPC staff worked with MassDOT, PVTA, Municipalities with active projects, and project designers to develop current year project cost estimates and design status. Once the draft TIP was programmed, any project expected to receive Target funds was inflated 4% per year starting in FFY2018 in order to reflect year of expenditure (YOE).

Table 5 Federal Highway Financial Plan

FFY	2017	2018	2019	2020	2021	GRAND TOTAL
Total Target Funds	\$22,438,689	\$22,303,483	\$23,303,193	\$23,855,357	\$23,855,357	\$115,756,079
Total STP	\$16,729,597	\$17,980,011	\$18,946,511	\$19,442,035	\$19,318,103	\$92,416,257
Total CMAQ	\$3,378,100	\$2,702,480	\$2,702,480	\$2,702,480	\$2,702,480	\$14,188,020
Total HSIP	\$1,080,992	\$1,080,992	\$1,080,992	\$1,080,992	\$1,080,992	\$5,404,960
Total TAP	\$1,250,000	\$540,000	\$573,500	\$629,850	\$753,782	\$3,747,132
Total of Programmed	\$20,702,063	\$18,306,054	\$22,634,193	\$7,955,525	\$16,747,848	\$86,345,683
Programmed STP	\$15,499,096	\$13,982,582	\$18,277,221	\$6,584,228	\$14,427,848	\$68,770,975
Programmed CMAQ	\$2,871,975	\$2,702,480	\$2,702,480	\$1,371,297	\$2,320,000	\$11,968,232
Programmed HSIP	\$1,080,992	\$1,080,992	\$1,080,992	\$0	\$0	\$3,242,976
Programmed TAP	\$1,250,000	\$540,000	\$573,500	\$0	\$0	\$2,363,500
Difference	\$1,736,626	\$3,997,429	\$669,000	\$15,899,832	\$7,107,509	\$29,410,396

The funding targets were programmed to projects according to project priority rating. Projects were programmed slightly beyond the program target with the understanding that the targets are not earmarks and program levels are expected to fluctuate.

The TIP reflects an emphasis on the maintenance and operation of the current transportation system with the ability to provide capital improvements. The federal aid program for each year consists of almost entirely of maintenance projects for the present transportation system.

The transit program outlined in Table 4 represents both apportioned items as well as discretionary items. The total programmed amount represents both the federal, state and local contributions.

Table 6 Federal Transit Financial Plan

FFY	2017	2018	2019	2020	2021	GRAND TOTAL
Transit Capital Investment	\$33,951,762	\$55,197,093	\$30,630,987	\$23,820,756	\$23,196,839	\$166,797,437
5307	\$31,543,435	\$14,630,409	\$15,628,165	\$17,520,685	\$17,143,534	\$96,466,228
5309	\$0	\$0	\$0	\$0	\$0	\$0
5310	\$0	\$0	\$0	\$0	\$0	\$0
5311	\$0	\$0	\$0	\$0	\$0	\$0
5337	\$0	\$0	\$0	\$0	\$0	\$0
5339	\$2,408,327	\$1,046,684	\$1,062,384	\$1,094,495	\$1,110,913	\$6,722,803
5320	\$0		\$0	\$0	\$0	\$0
Other Federal	\$0		\$0	\$0	\$0	\$0
Other Non Federal	\$0	\$39,520,000	\$13,940,438	\$5,205,576	\$4,942,392	\$63,608,406

The transit projects programmed focus on maintaining and operating the present system while implementing the recommendations of the Comprehensive Service Analysis (CSA) completed in the spring of 2014. For more information regarding the CSA please go to PVTa website.

www.pvta.com .

IV. FEDERAL AID REGIONAL PROJECT LISTINGS

The following is a complete listing of the Pioneer Valley Federally Funded Transportation Improvement Projects for Fiscal Years 2017-2021.

ORGANIZATION OF PROJECT LISTINGS

Each project in the TIP contains the following information:

MassDOT Project ID - Project identification numbers given by the Massachusetts Highway Department.

MassDOT Project Description – Includes Town or city in which a project is located, and a description of work to be funded under the project.

MassDOT District – The MassDOT sub-Region where the project is located, for PVMPO projects will be in either District 1 or District 2.

Funding Source - The funding category from which funding is expected.

Total Programmed Funds - The total funding for the project under the specified funding source.

Federal Funds - The amount of federal dollars allocated for project construction.

Non-Federal Funds - The amount of non-federal dollars allocated to the project.

Additional Information – Provides additional project information including design status, Transportation Evaluation Criteria (TEC) Score, and YOE Cost.

Regional Target - The total combined Federal and State dollar amount provided for project funding.

TEC Score – This score is based on criteria developed rank the regional significance of each eligible TIP project

Table 7: Federally Funded Projects Year 2017

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	605011	Pioneer Valley	Ludlow	LUDLOW- RECONSTRUCTION OF CENTER STREET (ROUTE 21), FROM 35' WEST OF BEACHSIDE DRIVE WESTERLY TO GAS LINE BESIDE MTA OVERPASS (3,500 FEET)	2	HSIP	\$ 1,080,992	\$ 972,893	\$ 108,099	40 TEC, 25% (YOE \$5,485,350) STP, HSIP
							\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ 1,080,992	\$ 972,893	\$ 108,099	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	PV001	Pioneer Valley	Multiple	PIONEER VALLEY REGIONAL BICYCLE SHARE (PHASE 1)	2	CMAQ	\$ 1,171,971	\$ 937,577	\$ 234,394	46.5 TEC Score Regional Project CMAQ
	606903	Pioneer Valley	Holyoke	HOLYOKE- IMPROVEMENTS TO LOWER WESTFIELD ROAD ON I-91 (INTERCHANGE 15)	2	CMAQ	\$ 1,700,004	\$ 1,360,003	\$ 340,001	38.5 TEC Pre 25% (YOE \$1,700,004) STP
CMAQ Subtotal ►							\$ 2,871,975	\$ 2,297,580	\$ 574,395	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	608023	Pioneer Valley	Multiple	AMHERST- HADLEY- SIDEWALK & WHEELCHAIR RAMP CONSTRUCTION ON ROUTE 9	2	TAP	\$ 850,000	\$ 680,000	\$ 170,000	13.5 TEC PSE (YOE \$1,204,050) STP, TAP
	605011	Pioneer Valley	Ludlow	LUDLOW- RECONSTRUCTION OF CENTER STREET (ROUTE 21), FROM 35' WEST OF BEACHSIDE DRIVE WESTERLY TO GAS LINE BESIDE MTA OVERPASS	2	TAP	\$ 400,000	\$ 320,000	\$ 80,000	40 TEC, 25% (YOE \$5,485,350) STP, HSIP, TAP
TAP Subtotal ►							\$ 1,250,000	\$ 1,000,000	\$ 250,000	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	608023	Pioneer Valley	Amherst	AMHERST- HADLEY- SIDEWALK & WHEELCHAIR RAMP CONSTRUCTION ON ROUTE 9	2	STP	\$ 354,050	\$ 283,240	\$ 70,810	13.5 TEC PSE (YOE \$1,204,050) STP, TAP
	604033	Pioneer Valley	Southwick	SOUTHWICK- RECONSTRUCTION CONGAMOND ROAD (ROUTE 168), FROM COLLEGE HIGHWAY & ENDS 250 FEET SHORT OF STATE LINE (1.2 MILES)	2	STP	\$ 6,549,979	\$ 5,239,983	\$ 1,309,996	49.5 TEC Score 25% (YOE \$6,549,979) STP
	608126	Pioneer Valley	Goshen	GOSHEN- RESURFACING AND RELATED WORK ON ROUTE 9, FROM CUMMINGTON T.L. TO ROUTE 112 (CAPE STREET)	1	STP	\$ 4,190,709	\$ 3,352,567	\$ 838,142	13 TEC 25% (YOE \$ 4,190,709) STP
	605011	Pioneer Valley	Ludlow	LUDLOW- RECONSTRUCTION OF CENTER STREET (ROUTE 21), FROM 35' WEST OF BEACHSIDE DRIVE WESTERLY TO GAS LINE BESIDE MTA OVERPASS (3,500 FEET)	2	STP	\$ 4,004,358	\$ 3,203,486	\$ 800,872	40 TEC, 25% (YOE \$5,485,350) STP, HSIP, TAP
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 15,099,096	\$ 12,079,277	\$ 3,019,819	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
Total Federal Aid Target Funds Programmed ►							\$ 20,302,063	\$ 22,438,689	◄ Total Target	\$ 2,136,626 Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 15,099,096	\$ 16,729,598	◄ Max. Non-CMAQ/HSIP/TAP	\$ 1,630,502 Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►							\$ 1,080,992	\$ 1,080,992	◄ Min. HSIP	\$ - HSIP Recommended Met
Total CMAQ Programmed ►							\$ 2,871,975	\$ 3,378,100	◄ Min. CMAQ	\$ 506,125 CMAQ Recommended Not Met
Total TAP Programmed ►							\$ 1,250,000	\$ 1,250,000	◄ Min. TAP	\$ - TAP Recommended Met

Table 7: Federally Funded Projects Year 2017 (Continued)

► Section 1B / Federal Aid Bridge Projects										
► Statewide Systematic Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
	605384	Pioneer Valley	Agawam	AGAWAM- WEST SPRINGFIELD- BRIDGE REPLACEMENT, A-05-002=W-21-014, ROUTE 147 OVER THE WESTFIELD RIVER & INTERSECTION & SIGNAL IMPROVEMENTS @ 3 LOCATIONS	2	NHPP	\$ 20,957,129	\$ 16,765,703	\$ 4,191,426	\$21M. 5M Bridge, 16M STP - STATEWIDE Infrastructure. OK.
							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ 20,957,129	\$ 16,765,703	\$ 4,191,426	◄ 80% Federal + 20% Non-Federal
► Off-System										
	607528	Pioneer Valley	Amherst	AMHERST- BRIDGE REPLACEMENT, A-08-008, MILL STREET OVER MILL RIVER	2	STP-BR-OFF	\$ 2,075,400	\$ 1,660,320	\$ 415,080	
	607549	Pioneer Valley	Chesterfield	CHESTERFIELD- BRIDGE REPLACEMENT, C-12-009, IRELAND STREET OVER WEST BRANCH BRONSON BROOK	1	STP-BR-OFF	\$ 3,341,040	\$ 2,672,832	\$ 668,208	
Off-System Subtotal ►							\$ 5,416,440	\$ 4,333,152	\$ 1,083,288	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Regional Major Infrastructure										
	607731	Pioneer Valley	Springfield	SPRINGFIELD- VIADUCT DECK REPLACEMENT OF S-24-061 ON I-91 (EARLY ACTION)	2	NHPP	\$ 9,000,000	\$ 7,200,000	\$ 1,800,000	AC Yr 4 of 4. Total Cost = \$183M.
							\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ 9,000,000	\$ 7,200,000	\$ 1,800,000	◄ 80% Federal + 20% Non-Federal
► Statewide Americans with Disability Act Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 7: Federally Funded Projects Year 2017 (Continued)

► **Statewide Congestion Mitigation and Air Quality**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide CMAQ Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide HSIP Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

► **Statewide Infrastructure Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Interstate Maintenance Program**

	608211	Pioneer Valley	Multiple	CHICOPEE- SPRINGFIELD- INTERSTATE MAINTENANCE & RELATED WORK ON I-291	2	NHPP	\$ 4,118,400	\$ 3,706,560	\$ 411,840	
							\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ 4,118,400	\$ 3,706,560	\$ 411,840	◄ 90% Federal + 10% Non-Federal

► **Statewide Intelligent Transportation Systems**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Freight Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Highway System Preservation Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Planning Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 7: Federally Funded Projects Year 2017 (Continued)

► Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Statewide Stormwater Retrofits										
	608192	Pioneer Valley	Multiple	AGAWAM- CHICOPEE- HOLYOKE- WEST SPRINGFIELD- STORMWATER IMPROVEMENTS ALONG I-91, I-391, ROUTE 57 AND ROUTE 5	2	STP-TE	\$ 1,276,062	\$ 1,020,850	\$ 255,212	
							\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ►							\$ 1,276,062	\$ 1,020,850	\$ 255,212	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -		\$ -	
				No Projects Programmed		NFA	\$ -		\$ -	
Non-Federal Aid Subtotal ►							\$ -		\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -		\$ -	
				No Projects Programmed		NFA	\$ -		\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -	◄100% Non-Federal

2017 Pioneer Valley Region MPO TIP Summary							TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►							\$ 52,070,094	\$ -	\$ 52,070,094	◄ Total Spending in Region
Federal Funds ►							\$ 42,176,014		\$ 42,176,014	◄ Total Federal Spending in Region
Non-Federal Funds ►							\$ 9,894,080	\$ -	\$ 9,894,080	◄ Total Non-Federal Spending in Region

Table 8: Federally Funded Projects 2018

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	604203	Pioneer Valley	Agawam	AGAWAM- INTERSECTION IMPROVEMENTS AT ROUTE 187 & ROUTE 57	2	HSIP	\$ 1,080,992	\$ 972,893	\$ 108,099	58 TEC, Pre 25% (YOE \$2,288,000) HSIP, STP
							\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ 1,080,992	\$ 972,893	\$ 108,099	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	604597	Pioneer Valley	Northampton	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	2	CMAQ	\$ 2,702,480	\$ 2,161,984	\$ 540,496	63 TEC 25% (YOE \$5,742,322) STP, TAP, CMAQ
							\$ -	\$ -	\$ -	
CMAQ Subtotal ►							\$ 2,702,480	\$ 2,161,984	\$ 540,496	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	604597	Pioneer Valley	Northampton	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	2	TAP	\$ 540,000	\$ 432,000	\$ 108,000	63 TEC 25% (YOE \$5,742,322) STP, TAP
							\$ -	\$ -	\$ -	
TAP Subtotal ►							\$ 540,000	\$ 432,000	\$ 108,000	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	603449	Pioneer Valley	Westfield	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	2	STP	\$ 2,488,312	\$ 1,990,650	\$ 497,662	57.5 TEC, 25% Design, (HPP-4287 \$2,503,688 Total with Match) (YOE \$4,992,000) HPP, STP
	604738	Pioneer Valley	Southampton	SOUTHAMPTON- RECONSTRUCTION OF GLENDALE ROAD (PHASE II) FROM COLLEGE HIGHWAY (RT 10) NORTHWESTERLY TO POMEROY MEADOW RD (3,801 FEET)	2	STP	\$ 2,386,800	\$ 1,909,440	\$ 477,360	18.8 TEC Score 75% (YOE \$2,386,800) STP
	604597	Pioneer Valley	Northampton	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	2	STP	\$ 2,499,842	\$ 1,999,874	\$ 499,968	63 TEC 25% (YOE \$5,742,322) STP, TAP, CMAQ
	608236	Pioneer Valley	Northampton	NORTHAMPTON- RECONSTRUCTION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, INCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL	2	STP	\$ 5,400,620	\$ 4,320,496	\$ 1,080,124	64.5 TEC 25% (YOE \$5,400,620) CMAQ
	604203	Pioneer Valley	Agawam	AGAWAM- INTERSECTION IMPROVEMENTS AT ROUTE 187 & ROUTE 57	2	STP	\$ 1,207,008	\$ 965,606	\$ 241,402	58 TEC, Pre 25% (YOE \$2,288,000) HSIP, STP
	608253	Pioneer Valley	Palmer	PALMER- RESURFACING AND RELATED WORK ON ROUTE 67, FROM 0.3 MILES EAST OF ROUTE 20 TO THE WARREN T.L. (5 MILES)	2	STP	\$ 2,722,441	\$ 2,177,953	\$ 544,488	15.5 TEC 0% (YOE \$2,722,441) STP
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 16,705,023	\$ 13,364,018	\$ 3,341,005	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
Total Federal Aid Target Funds Programmed ►							\$ 21,028,495	\$ 22,303,483	◄ Total Target	\$ 1,274,988
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 16,705,023	\$ 17,980,011	◄ Max. Non-CMAQ/HSIP/TAP	\$ 1,274,988
Total HSIP Programmed ►							\$ 1,080,992	\$ 1,080,992	◄ Min. HSIP	\$ -
Total CMAQ Programmed ►							\$ 2,702,480	\$ 2,702,480	◄ Min. CMAQ	\$ -
Total TAP Programmed ►							\$ 540,000	\$ 540,000	◄ Min. TAP	\$ -
										Target Funds Available
										Non-CMAQ/HSIP/TAP (Other) Available
										HSIP Recommended Met
										CMAQ Recommended Met
										TAP Recommended Met

Table 8: Federally Funded Projects Year 2018 (Continued)

► Section 1B / Federal Aid Bridge Projects										
► Statewide Systematic Maintenance Program										
	607939	Pioneer Valley	Cummington	CUMMINGTON- BRIDGE MAINTENANCE, C-21-025, ROUTE 9 OVER THE WESTFIELD RIVER	1	NHPP	\$ 312,000	\$ 249,600	\$ 62,400	
							\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ 312,000	\$ 249,600	\$ 62,400	◄ 80% Federal + 20% Non-Federal
► On System										
	600936	Pioneer Valley	Holyoke	HOLYOKE- BRIDGE REPLACEMENT, H-21-018, LYMAN STREET OVER FIRST LEVEL CANAL	2	NHPP	\$ 12,233,107	\$ 9,786,486	\$ 2,446,621	
							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ 12,233,107	\$ 9,786,486	\$ 2,446,621	◄ 80% Federal + 20% Non-Federal
► Off-System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
	603449	Pioneer Valley	Westfield	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	2	HPP	\$ 2,503,688	\$ 2,002,950	\$ 500,738	57.5 TEC, 25% Design, (HPP-4287 \$2,503,688 Total with Match) (YOE \$4,992,000) HPP, STP
							\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ►							\$ 2,503,688	\$ 2,002,950	\$ 500,738	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Regional Major Infrastructure										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 8: Federally Funded Projects Year 2018 (Continued)

► **Statewide Americans with Disability Act Implementation Plan**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Congestion Mitigation and Air Quality**

	607589	Pioneer Valley	Springfield	SPRINGFIELD- NORTH END PEDESTRIAN PATH CONSTRUCTION (UNDER THE CONNECTICUT RIVER RAILROAD), BETWEEN PLAINFIELD STREET AND BIRNIE AVENUE, INCLUDES CONSTRUCTION OF NEW BRIDGE S-24-044	2	CMAQ	\$ 4,492,800	\$ 3,594,240	\$ 898,560	TEC 24
							\$ -	\$ -	\$ -	
Statewide CMAQ Subtotal ►							\$ 4,492,800	\$ 3,594,240	\$ 898,560	◄ 80% Federal + 20% Non-Federal

► **Statewide HSIP Program**

	607736	Pioneer Valley	Chicopee	CHICOPEE- SIGNAL & INTERSECTION IMPROVEMENTS AT 11 INTERSECTIONS ALONG ROUTE 33 (MEMORIAL DRIVE), FROM FULLER ROAD TO BRITTON STREET	2	HSIP	\$ 3,968,619	\$ 3,571,757	\$ 396,862	TEC 40.5
							\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ 3,968,619	\$ 3,571,757	\$ 396,862	◄ 90% Federal + 10% Non-Federal

► **Statewide Infrastructure Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Interstate Maintenance Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

► **Statewide Intelligent Transportation Systems**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Freight Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Highway System Preservation Program**

	607474	Pioneer Valley	Multiple	GRANBY- SOUTH HADLEY- RESURFACING & RELATED WORK ON ROUTE 202, FROM LYMAN STREET SOUTH HADLEY TO PLEASANT STREET GRANBY (2 MILES)	2	NHPP	\$ 1,946,880	\$ 1,557,504	\$ 389,376	TEC 20.5
							\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ 1,946,880	\$ 1,557,504	\$ 389,376	◄ 80% Federal + 20% Non-Federal

Table 8: Federally Funded Projects Year 2018 (Continued)

► Statewide Planning Program				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Railroad Grade Crossings				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Safe Routes to Schools Program				No Projects Programmed		SRTS	\$ -	\$ -	\$ -	
				No Projects Programmed		SRTS	\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Statewide Stormwater Retrofits				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

Table 8: Federally Funded Projects Year 2018 (Continued)

► Section 2A / Non-Federal Projects									
► Non Federal Aid									
				No Projects Programmed		NFA	\$ -	\$ -	
				No Projects Programmed		NFA	\$ -	\$ -	
Non-Federal Aid Subtotal►							\$ -	\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects									
► Section 2B / Non-Federal Bridge Projects									
				No Projects Programmed		NFA	\$ -	\$ -	
				No Projects Programmed		NFA	\$ -	\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal►							\$ -	\$ -	◄100% Non-Federal

2018 Pioneer Valley Region MPO TIP Summary				TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►				\$ 46,485,589	\$ -	\$ 46,485,589	◄ Total Spending in Region
Federal Funds ►				\$ 37,693,432		\$ 37,693,432	◄ Total Federal Spending in Region
Non-Federal Funds ►				\$ 8,792,157	\$ -	\$ 8,792,157	◄ Total Non-Federal Spending in Region

Table 9: Federally Funded Projects 2019

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	606156	Pioneer Valley	Holyoke	HOLYOKE- RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	2	HSIP	\$ 1,080,992	\$ 972,893	\$ 108,099	46.5 TEC Score Pre 25% (YOE \$2,808,000) HSIP, CMAQ
							\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ 1,080,992	\$ 972,893	\$ 108,099	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	606156	Pioneer Valley	Holyoke	HOLYOKE- RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	2	CMAQ	\$ 1,727,008	\$ 1,381,606	\$ 345,402	46.5 TEC Score Pre 25% (YOE \$2,808,000) HSIP, CMAQ
	607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	CMAQ	\$ 975,472	\$ 780,378	\$ 195,094	54.5 TEC Score 25% (YOE \$2,138,400) STP, TAP, CMAQ
CMAQ Subtotal ►							\$ 2,702,480	\$ 2,161,984	\$ 540,496	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	TAP	\$ 573,500	\$ 458,800	\$ 114,700	54.5 TEC Score 25% (YOE \$2,138,400) STP, TAP
							\$ -	\$ -	\$ -	68 TEC Score Pre 25% (YOE \$1,568,000) CMAQ, TAP
TAP Subtotal ►							\$ 573,500	\$ 458,800	\$ 114,700	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	600513	Pioneer Valley	Agawam	AGAWAM- RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	2	STP	\$ 1,933,200	\$ 1,546,560	\$ 386,640	27 TEC Score PRE 25% (YOE \$1,933,200) STP
	607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	STP	\$ 589,428	\$ 471,542	\$ 117,886	54.5 TEC Score 25% (YOE \$2,138,400) STP, TAP, CMAQ
	607773	Pioneer Valley	Westfield	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	STP	\$ 6,480,000	\$ 5,184,000	\$ 1,296,000	48.5 TEC Score 25% (YOE 6,480,000) STP, (HPP will be used for Phase I)
	604209	Pioneer Valley	Multiple	HOLYOKE- WEST SPRINGFIELD- REHABILITATION OF ROUTE 5 (RIVERDALE ROAD), FROM I-91 (INTERCHANGE 13) TO MAIN STREET IN HOLYOKE & FROM ELM STREET TO NORTH ELM STREET IN WEST SPRINGFIELD (3.2 MILES)	2	STP	\$ 4,814,456	\$ 3,851,565	\$ 962,891	50 TEC Score Pre 25% (YOE \$4,814,456) STP
	607256	Pioneer Valley	Holyoke	HOLYOKE- RESURFACING & RELATED WORK ON HERITAGE STREET, FRONT STREET & DWIGHT STREET FROM MAPLE ST TO THE 1ST LEVEL CANAL (.54 MILES)	2	STP	\$ 3,104,024	\$ 2,483,219	\$ 620,805	46 TEC Score 25% (YOE \$3,104,024) STP

Table 9: Federally Funded Projects Year 2019 (Continued)

	608084	Pioneer Valley	Amherst	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	2	STP	\$ 1,356,113	\$ 1,084,890	\$ 271,223	48.5 TEC Score Pre 25% (YOE \$1,356,113) STP
Non-CMAQ/HSIP/TAP (Other) Subtotal ▶							\$ 18,277,221	\$ 14,621,777	\$ 3,655,444	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ▶	\$ 22,634,193	\$ 23,303,483	◀Total Target	\$ 669,290	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ▶	\$ 18,277,221	\$ 18,946,511	◀ Max. Non-CMAQ/HSIP/TAP	\$ 669,290	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ▶	\$ 1,080,992	\$ 1,080,992	◀ Min. HSIP	\$ -	HSIP Recommended Met
Total CMAQ Programmed ▶	\$ 2,702,480	\$ 2,702,480	◀ Min. CMAQ	\$ -	CMAQ Recommended Met
Total TAP Programmed ▶	\$ 573,500	\$ 573,500	◀ Min. TAP	\$ -	TAP Recommended Met

Remaining HSIP, CMAQ, and TAP Funds \$ -

► Section 1B / Federal Aid Bridge Projects

► Statewide Systematic Maintenance Program

	608258	Pioneer Valley	Huntington	HUNTINGTON- BRIDGE PRESERVATION, BRIDGE NO. H-27-007	1	NHPP	\$ 453,000	\$ 362,400	\$ 90,600	
							\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ▶							\$ 453,000	\$ 362,400	\$ 90,600	◀ 80% Federal + 20% Non-Federal

► On System

	606552	Pioneer Valley	Northampton	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	2	NHPP	\$ 57,206,767	\$ 45,765,414	\$ 11,441,353	
							\$ -	\$ -	\$ -	
On System Subtotal ▶							\$ 57,206,767	\$ 45,765,414	\$ 11,441,353	◀ 80% Federal + 20% Non-Federal

► Off-System

		Pioneer Valley	Middlefield	MIDDLEFIELD- BRIDGE REPLACEMENT, M-19-010, CHESTER ROAD OVER SMART BROOK	1	STP-BR-OFF	\$ 1,411,344	\$ 1,129,075	\$ 282,269	
							\$ -	\$ -	\$ -	
Off-System Subtotal ▶							\$ 1,411,344	\$ 1,129,075	\$ 282,269	◀ 80% Federal + 20% Non-Federal

► Statewide Bridge Inspection Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Section 1C / Federal Aid Non-Target Projects

► Other Federal Aid

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 9: Federally Funded Projects Year 2019 (Continued)

► **Section 1D / Federal Aid Major & State Category Projects**

► **Regional Major Infrastructure**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Americans with Disability Act Implementation Plan**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Congestion Mitigation and Air Quality**

	602911	Pioneer Valley	Chicopee	CHICOPEE- CONNECTICUT RIVERWALK & BIKEWAY CONSTRUCTION, FROM BOAT RAMP NEAR I-90 TO NASH FIELD (2.5 MILES), INCLUDES NEW BRIDGE C-13-060 OVER OVERFLOW CHANNEL	2	CMAQ	\$ 4,052,959	\$ 3,242,367	\$ 810,592	TEC 27 - 25% Design
	603783	Pioneer Valley	Westfield	WESTFIELD- COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION (CENTER DOWNTOWN SECTION), FROM EAST SILVER STREET TO COWLES COURT, INCLUDES W-25,014, W-25-015, W-25-016, W-25-017, W-25-018 & W-25-019	2	CMAQ	\$ 6,784,161	\$ 5,427,329	\$ 1,356,832	TEC 36.6 - 75% Desing
	605555	Pioneer Valley	Northampton	NORTHAMPTON- ROUNABOUT CONSTRUCTION AT INTERSECTION ROUTES 5/10 (NORTH KING STREET) & HATFIELD STREET	2	CMAQ	\$ 2,985,469	\$ 2,388,375	\$ 597,094	TEC 52 - 25% Design
Statewide CMAQ Subtotal ►							\$ 13,822,589	\$ 11,058,071	\$ 2,764,518	◄ 80% Federal + 20% Non-Federal

► **Statewide HSIP Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

► **Statewide Infrastructure Program**

	608600	Pioneer Valley	Multiple	Chicopee - West Springfield- Highway Lighting Upgrade on I-91	2	STP	\$ 2,991,497	\$ 2,393,198	\$ 598,299	
							\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ 2,991,497	\$ 2,393,198	\$ 598,299	◄ 80% Federal + 20% Non-Federal

► **Statewide Interstate Maintenance Program**

	607560	Pioneer Valley	Multiple	CHICOPEE- HOLYOKE- INTERSTATE MAINTENANCE & RELATED WORK ON I-391	2	NHPP	\$ 9,927,072	\$ 8,934,365	\$ 992,707	
							\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ 9,927,072	\$ 8,934,365	\$ 992,707	◄ 90% Federal + 10% Non-Federal

► **Statewide Intelligent Transportation Systems**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 9: Federally Funded Projects Year 2019 (Continued)

► **Statewide National Freight Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Highway System Preservation Program**

	608466	Pioneer Valley	Belchertown	BELCHERTOWN- GRANBY- RESURFACING AND RELATED WORK ON ROUTE 202	2	NHPP	\$ 4,850,591	\$ 3,880,473	\$ 970,118	
							\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ 4,850,591	\$ 3,880,473	\$ 970,118	◄ 80% Federal + 20% Non-Federal

► **Statewide Planning Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Railroad Grade Crossings**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Safe Routes to Schools Program**

				No Projects Programmed		SRTS	\$ -	\$ -	\$ -	
				No Projects Programmed		SRTS	\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

► **Statewide Stormwater Retrofits**

	607560	Pioneer Valley	Multiple	CHICOPEE- HOLYOKE- INTERSTATE MAINTENANCE & RELATED WORK ON I-391	2	STP-TE	\$ 1,281,255	\$ 1,025,004	\$ 256,251	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ►							\$ 1,281,255	\$ 1,025,004	\$ 256,251	◄ 80% Federal + 20% Non-Federal

► **Statewide Transportation Enhancements**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Other Statewide Items**

				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

Table 9: Federally Funded Projects Year 2019 (Continued)

► Section 2A / Non-Federal Projects									
► Non Federal Aid									
				No Projects Programmed		NFA	\$ -		\$ -
				No Projects Programmed		NFA	\$ -		\$ -
Non-Federal Aid Subtotal►							\$ -	\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects									
► Section 2B / Non-Federal Bridge Projects									
				No Projects Programmed		NFA	\$ -		\$ -
				No Projects Programmed		NFA	\$ -		\$ -
Section 2B / Non-Federal Bridge Projects Subtotal►							\$ -	\$ -	◄100% Non-Federal
2019 Pioneer Valley Region MPO TIP Summary							TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼
Total ►							\$ 114,578,308	\$ -	\$ 114,578,308
Federal Funds ►							\$ 92,763,453		\$ 92,763,453
Non-Federal Funds ►							\$ 21,814,855	\$ -	\$ 21,814,855
							◄ Total Spending in Region		
							◄ Total Federal Spending in Region		
							◄ Total Non-Federal Spending in Region		

Table 10: Federally Funded Projects Year 2020

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	606895	Pioneer Valley	Granby	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	2	CMAQ	\$ 1,371,297	\$ 1,097,038	\$ 274,259	42 TEC 25% (YOE \$1,371,297) CMAQ
				No Projects Programmed			\$ -	\$ -	\$ -	
CMAQ Subtotal ►							\$ 1,371,297	\$ 1,097,038	\$ 274,259	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
TAP Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	605032	Pioneer Valley	Hadley	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM EAST STREET TO MAPLE/SOUTH MAPLE ST	2	STP	\$ 4,959,497	\$ 3,967,598	\$ 991,899	46 TEC 25% (YOE \$4,959,497) STP
	607626	Pioneer Valley	Agawam	AGAWAM- RESURFACING & RELATED WORK ON ROUTE 159, FROM MEADOW STREET TO 150 FT. SOUTH OF SUFFIELD STREET (1.1 MILES)	2	STP	\$ 1,624,731	\$ 1,299,785	\$ 324,946	31.5 TEC 75% (YOE \$ 1,624,731) STP
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 6,584,228	\$ 5,267,382	\$ 1,316,846	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
Total Federal Aid Target Funds Programmed ►							\$ 7,955,525	\$ 23,855,357	◄Total Target	\$ 15,899,832
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 6,584,228	\$ 19,442,035	◄ Max. Non-CMAQ/HSIP/TAP	\$ 12,857,807
Total HSIP Programmed ►							\$ -	\$ 1,080,992	◄ Min. HSIP	\$ 1,080,992
Total CMAQ Programmed ►							\$ 1,371,297	\$ 2,702,480	◄ Min. CMAQ	\$ 1,331,183
Total TAP Programmed ►							\$ -	\$ 629,850	◄ Min. TAP	\$ 629,850
										Target Funds Available
										Non-CMAQ/HSIP/TAP (Other) Available
										HSIP Recommended Not Met
										CMAQ Recommended Not Met
										TAP Recommended Not Met

Table 10: Federally Funded Projects Year 2020 (Continued)

► Section 1B / Federal Aid Bridge Projects										
► Statewide Systematic Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
	608460	Pioneer Valley	Hadley	HADLEY - BRIDGE REPLACEMENT, H01005, ROUTE 47 (BAY ROAD) OVER FORT RIVER	2	NHPP	\$ 4,853,092	\$ 3,882,474	\$ 970,618	
	400103	Pioneer Valley	Westfield	WESTFIELD- BRIDGE REPLACEMENT, W-25-006, ROUTE 10/202 (SOUTHWICK ROAD) OVER THE LITTLE RIVER	2	NHPP	\$ 14,260,460	\$ 11,408,368	\$ 2,852,092	25% Design
On System Subtotal ►							\$ 19,113,552	\$ 15,290,842	\$ 3,822,710	◄ 80% Federal + 20% Non-Federal
► Off-System										
	608631	Pioneer Valley	Westhampton	WESTHAMPTON - BRIDGE REPLACEMENT, W-27-005, KINGS HIGHWAY OVER N BRANCH MANAHN RIVER	1	STP-BR-OFF	\$ 3,071,040	\$ 2,456,832	\$ 614,208	
							\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ 3,071,040	\$ 2,456,832	\$ 614,208	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Regional Major Infrastructure										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Americans with Disability Act Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 10: Federally Funded Projects Year 2020 (Continued)

► **Statewide Congestion Mitigation and Air Quality**

	602912	Pioneer Valley	Chicopee	CHICOPEE- CHICOPEE RIVER RIVERWALK MULTI-USE PATH CONSTRUCTION, FROM GRAPE STREET TO FRONT STREET (NEAR ELLERTON STREET) (1 MILE)	2	CMAQ	\$ 2,273,911	\$ 1,819,129	\$ 454,782	
	606450	Pioneer Valley	Holyoke	HOLYOKE- TRAFFIC SIGNAL UPGRADES AT 15 INTERSECTIONS ALONG HIGH & MAPLE STREETS	2	CMAQ	\$ 3,970,042	\$ 3,176,034	\$ 794,008	
Statewide CMAQ Subtotal ►							\$ 6,243,953	\$ 4,995,162	\$ 1,248,791	◄ 80% Federal + 20% Non-Federal

► **Statewide HSIP Program**

	608575	Pioneer Valley	Multiple	CHICOPEE TO HOLYOKE - GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-391	2	HSIP	\$ 562,979	\$ 506,681	\$ 56,298	
							\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ 562,979	\$ 506,681	\$ 56,298	◄ 90% Federal + 10% Non-Federal

► **Statewide Infrastructure Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Interstate Maintenance Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

► **Statewide Intelligent Transportation Systems**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Freight Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide National Highway System Preservation Program**

	608473	Pioneer Valley	South Hadley	SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROUTE 116	2	NHPP	\$ 2,619,187	\$ 2,095,350	\$ 523,837	
							\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ 2,619,187	\$ 2,095,350	\$ 523,837	◄ 80% Federal + 20% Non-Federal

► **Statewide Planning Program**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► **Statewide Railroad Grade Crossings**

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 10: Federally Funded Projects Year 2020 (Continued)

► Statewide Safe Routes to Schools Program									
				No Projects Programmed		SRTS	\$ -	\$ -	\$ -
				No Projects Programmed		SRTS	\$ -	\$ -	\$ -
Statewide Safe Routes to Schools Program Subtotal ►							\$ -	\$ -	\$ -
◄ Funding Split Varies by Funding Source									
► Statewide Stormwater Retrofits									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Stormwater Retrofits Subtotal ►							\$ -	\$ -	\$ -
◄ 80% Federal + 20% Non-Federal									
► Statewide Transportation Enhancements									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -
◄ 80% Federal + 20% Non-Federal									
► Other Statewide Items									
				ABP GANS Repayment			\$ -	\$ -	\$ -
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -
				Planning			\$ -	\$ -	\$ -
				Statewide Design and Right of Way			\$ -	\$ -	\$ -
				Statewide Recreational Trails			\$ -	\$ -	\$ -
Other Statewide Items Subtotal ►							\$ -	\$ -	\$ -
◄ Funding Split Varies by Funding Source									
► Section 2A / Non-Federal Projects									
► Non Federal Aid									
				No Projects Programmed		NFA	\$ -		\$ -
				No Projects Programmed		NFA	\$ -		\$ -
Non-Federal Aid Subtotal ►							\$ -		\$ -
◄ 100% Non-Federal									
► Section 2B / Non-Federal Bridge Projects									
► Section 2B / Non-Federal Bridge Projects									
				No Projects Programmed		NFA	\$ -		\$ -
				No Projects Programmed		NFA	\$ -		\$ -
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -
◄ 100% Non-Federal									

2020 Pioneer Valley Region MPO TIP Summary							TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼
Total ►							\$ 39,566,236	\$ -	\$ 39,566,236
Federal Funds ►							\$ 31,709,287		\$ 31,709,287
Non-Federal Funds ►							\$ 7,856,949	\$ -	\$ 7,856,949
									◄ Total Spending in Region
									◄ Total Federal Spending in Region
									◄ Total Non-Federal Spending in Region

Table 11: Federally Funded Projects Year 2021

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼	
► Section 1A / Federal Aid Target Projects											
► HSIP - Highway Safety Improvement Program											
				No Projects Programmed			\$ -	\$ -	\$ -		
				No Projects Programmed			\$ -	\$ -	\$ -		
HSIP Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal	
► CMAQ - Congestion Mitigation and Air Quality Improvement Program											
	607893	Pioneer Valley	Northampton	NORTHAMPTON- INTERSECTION IMPROVEMENTS @ ELM STREET, MAIN STREET, WEST STREET, STATE STREET & NEW SOUTH STREET	2	CMAQ	\$ 2,320,000	\$ 1,856,000	\$ 464,000	68 TEC Pre 25% CMAQ (YOE \$2,320,000)	
				No Projects Programmed			\$ -	\$ -	\$ -		
CMAQ Subtotal ►							\$ 2,320,000	\$ 1,856,000	\$ 464,000	◄ 80% Federal + 20% Non-Federal	
► TAP - Transportation Alternatives Program											
				No Projects Programmed			\$ -	\$ -	\$ -		
				No Projects Programmed			\$ -	\$ -	\$ -		
TAP Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal	
► Non-CMAQ/HSIP/TAP (Other)											
	607502	Pioneer Valley	Northampton	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	2	STP	\$ 4,060,000	\$ 3,248,000	\$ 812,000	64.5 TEC, Pre 25% STP (YOE \$3,920,000)	
	604434	Pioneer Valley	Chicopee	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	2	STP	\$ 7,203,600	\$ 5,762,880	\$ 1,440,720	47.6 Pre 25% STP (YOE \$6,955,000)	
	607430	Pioneer Valley	Longmeadow	LONGMEADOW- RESURFACING & RELATED WORK ON LONGMEADOW STREET (ROUTE 5), FROM THE CT S.L. TO CONVERSE STREET (2.88 MILES)	2	STP	\$ 3,164,248	\$ 2,531,398	\$ 632,850	34.4 TEC 25/75% STP (YOE \$3,055,136)	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 14,427,848	\$ 11,542,278	\$ 2,885,570	◄ 80% Federal + 20% Non-Federal	
► Section 1A / Fiscal Constraint Analysis											
Total Federal Aid Target Funds Programmed ►							\$ 16,747,848	\$ 23,855,357	◄Total Target	\$ 7,107,509	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 14,427,848	\$ 19,318,103	◄ Max. Non-CMAQ/HSIP/TAP	\$ 4,890,255	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►							\$ -	\$ 1,080,992	◄ Min. HSIP	\$ 1,080,992	HSIP Recommended Not Met
Total CMAQ Programmed ►							\$ 2,320,000	\$ 2,702,480	◄ Min. CMAQ	\$ 382,480	CMAQ Recommended Not Met
Total TAP Programmed ►							\$ -	\$ 753,782	◄ Min. TAP	\$ 753,782	TAP Recommended Not Met

Table 11: Federally Funded Projects Year 2021 (Continued)

► Section 1B / Federal Aid Bridge Projects									
► Statewide Systematic Maintenance Program									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal
► On System									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
On System Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal
► Off-System									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Off-System Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects									
► Other Federal Aid									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ - ◀ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects									
► Regional Major Infrastructure									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal
► Statewide Americans with Disability Act Implementation Plan									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ - ◀ 80% Federal + 20% Non-Federal

Table 11: Federally Funded Projects Year 2021 (Continued)

► Statewide Congestion Mitigation and Air Quality										
	608157	Pioneer Valley	Springfield	SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)	2	CMAQ	\$ 3,968,300	\$ 3,174,640	\$ 793,660	
							\$ -	\$ -	\$ -	
Statewide CMAQ Subtotal ►							\$ 3,968,300	\$ 3,174,640	\$ 793,660	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide National Highway System Preservation Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

Table 11: Federally Funded Projects Year 2021 (Continued)

► Statewide Railroad Grade Crossings									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -
◄ 80% Federal + 20% Non-Federal									
► Statewide Safe Routes to Schools Program									
				No Projects Programmed	SRTS		\$ -	\$ -	\$ -
				No Projects Programmed	SRTS		\$ -	\$ -	\$ -
Statewide Safe Routes to Schools Program Subtotal ►							\$ -	\$ -	\$ -
◄ Funding Split Varies by Funding Source									
► Statewide Stormwater Retrofits									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Stormwater Retrofits Subtotal ►							\$ -	\$ -	\$ -
◄ 80% Federal + 20% Non-Federal									
► Statewide Transportation Enhancements									
				No Projects Programmed			\$ -	\$ -	\$ -
				No Projects Programmed			\$ -	\$ -	\$ -
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -
◄ 80% Federal + 20% Non-Federal									
► Other Statewide Items									
				ABP GANS Repayment			\$ -	\$ -	\$ -
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -
				Planning			\$ -	\$ -	\$ -
				Statewide Design and Right of Way			\$ -	\$ -	\$ -
				Statewide Recreational Trails			\$ -	\$ -	\$ -
Other Statewide Items Subtotal ►							\$ -	\$ -	\$ -
◄ Funding Split Varies by Funding Source									
► Section 2A / Non-Federal Projects									
► Non Federal Aid									
				No Projects Programmed	NFA		\$ -		\$ -
				No Projects Programmed	NFA		\$ -		\$ -
Non-Federal Aid Subtotal ►							\$ -		\$ -
◄ 100% Non-Federal									
► Section 2B / Non-Federal Bridge Projects									
► Section 2B / Non-Federal Bridge Projects									
				No Projects Programmed	NFA		\$ -		\$ -
				No Projects Programmed	NFA		\$ -		\$ -
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -
◄ 100% Non-Federal									

2021 Pioneer Valley Region MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 20,716,148	\$ -	\$ 20,716,148	◄ Total Spending in Region
Federal Funds ►	\$ 16,572,918		\$ 16,572,918	◄ Total Federal Spending in Region
Non-Federal Funds ►	\$ 4,143,230	\$ -	\$ 4,143,230	◄ Total Non-Federal Spending in Region

TABLE 10 - PROJECT CURRENTLY UNDER DESIGN AWAITING FUNDING

Table 12 Projects Awaiting Design and Funds

TIP Year	CIP IN/OUT	Community	SID	Project Name and Description	Design	New TEC	Estimated Cost
2020	OUT	Agawam	607626	AGAWAM- RESURFACING & RELATED WORK ON ROUTE 159, FROM MEADOW STREET TO 150 FT. SOUTH OF SUFFIELD STREET (1.1 MILES)	75	31.5	\$1,450,653
2019	IN	Agawam	600513	RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	0	27.0	\$1,790,000
2018	IN	Agawam	604203	Route 187/57 Intersection Improvements	0	58.0	\$2,200,000
	OUT	Agawam	607316	RECONSTRUCTION OF ROUTE 187, FROM SOUTHWICK/SPRINGFIELD STREET TO ALLISON LANE (1.29 MILES - PHASE II)	25	33.8	\$5,562,610
	OUT	Agawam	607317	Route 187 Reconstruction from Allison Ln to Westfield City Line, 1.69 miles(Phase III)	0	33.8	\$7,589,668
	OUT	Agawam	607876	Sidewalk Construction on Route 159 From CT Line to Woodcliff Ave and From South St to River Road	0	13.5	\$450,265
2019	IN	Amherst	608084	Improvements and Related Work on Route 9 and 116 from University Drive to South Pleasant Street (0.8 miles)	0	48.5	\$1,255,660
	OUT	Amherst / Pelham	606230	RESURFACING & RELATED WORK ON ROUTE 9 FROM SOUTHEAST ST IN AMHERST THROUGH PELHAM TO THE BELCHERTOWN T.L. (2.2 MILES)	0	22.8	\$1,800,000
	OUT	Belchertown	608412	BELCHERTOWN- IMPROVEMENTS & RELATED WORK ON ROUTES 202 & 21, FROM TURKEY HILL ROAD TO SOUTH MAIN STREET (1.2 MILES)	0	53.5	\$2,790,000
	OUT	Belchertown	604692	RECONSTRUCTION ON SOUTH MAIN STREET & NORTH WASHINGTON STREET FROM SOUTH MAIN ST TO THE INTERSECTION OF NORTH LIBERTY (2.08 MILES)	25	38.0	\$3,740,430
2019 SW CMAQ	IN	Chicopee	602911	CONNECTICUT RIVERWALK & BIKEWAY CONSTRUCTION, FROM BOAT RAMP NEAR I-90 TO NASH FIELD (2.5 MILES) INCL NEW BRIDGE OVER OVERFLOW CHANNEL	25	27.0	\$3,752,740
2020 SW CMAQ	IN	Chicopee	602912	CHICOPEE RIVER RIVERWALK MULTI-USE PATH CONSTRUCTION, FROM GRAPE STREET TO FRONT STREET (NEAR ELLERTON STREET) (1 MILE)	25	27.9	\$2,030,278
2021	IN	Chicopee	604434	RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	0	47.6	\$6,210,000
	OUT	Chicopee	606892	SLOPE PROTECTION IMPROVEMENTS AT I-391 BRIDGE OVER THE CONNECTICUT RIVER	0	6.0	\$282,650
2018 SW HSIP	IN	Chicopee	607736	SIGNAL & INTERSECTION IMPROVEMENTS AT 11 INTERSECTIONS ALONG ROUTE 33 (MEMORIAL DRIVE), FROM FULLER ROAD TO BRITTON STREET	0	40.5	\$4,016,980
2019 NHPP	IN	Chicopee/Holyoke	607560	INTERSTATE MAINTENANCE & RELATED WORK ON I-391	0		\$10,911,130
	OUT	Cummington	606797	Route 9 Retaining Wall	0	4.5	\$1,660,000
	OUT	Easthampton / Southampton	608026	SIDEWALK CONSTRUCTION & RELATED WORK ON ROUTE 10, FROM MM 19.9 NORTHERLY TO MM 20.9 (600' SOUTH OF SOUTH STREET)	0	14.0	\$422,505
	OUT	Easthampton / Southampton	608423	IMPROVEMENTS AND RELATED WORK ON TWO SECTIONS OF ROUTE 10 IN EASTHAMPTON AND SOUTHAMPTON	0	28.5	\$2,799,540
	OUT	Goshen	602888	Route 9 reconstruction	25	28.0	\$7,500,000
	OUT	Goshen	605150	West Street Reclamation	25	16.1	\$3,800,000
2020	OUT	Granby	606895	Route 202 Intersection Improvements 2 Locations @ 5 Corners and @ School Street	25	42.0	\$1,224,372
2018 NHPP	IN	Granby / South Hadley	607474	GRANBY- SOUTH HADLEY- RESURFACING & RELATED WORK ON ROUTE 202, FROM LYMAN STREET SOUTH HADLEY TO PLEASANT STREET GRANBY (2 MILES)	0	20.5	\$1,872,000
	OUT	Hadley	606547	PEDESTRIAN SIGNAL INSTALLATION AT 2 LOCATIONS ALONG ROUTE 9 NEAR WEST ST	0	14.5	\$134,600
	OUT	Hadley	607886	RESURFACING AND RELATED WORK ON ROUTE 47 FROM COMINS DRIVE TO OLD RIVER DRIVE, INCLUDES CULVERT REPLACEMENT AT RUSSELVILLE BROOK	0	16.0	\$900,000
	OUT	Hadley	608089	INTERSECTION, BICYCLE AND PEDESTRIAN IMPROVEMENTS @ ROUTES 9, 116 & WESTGATE CENTER DRIVE	0	22.5	\$1,544,720

Table 12: Projects Awaiting Design and Funds (Appendix Z) (Cont.)

2020	OUT	Hadley	605032	RECONSTRUCTION ON ROUTE 9 BETWEEN THE LOWE'S AND HOME DEPOT SITE DRIVES (0.6 MILES)	25	46.0	\$4,428,122
	OUT	Hadley	605881	RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET (ROUTE 47) TO EAST OF MILL VALLEY ROAD (LOWE'S) (1.27 MILES)	0	40.0	\$6,900,000
	OUT	Holland	604962	RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM THE BRIMFIELD/HOLLAND T.L. TO THE INTERSECTION OF STAFFORD STREET (2.3 MILES)	25	23.0	\$1,084,307
2019	IN	Holyoke	606156	RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	0	46.5	\$2,600,000
2019 SW CMAQ	IN	Holyoke	606450	TRAFFIC SIGNAL UPGRADES AT 15 INTERSECTIONS ALONG HIGH & MAPLE STREETS	0	44.5	\$4,083,000
2017	IN	Holyoke	606903	IMPROVEMENTS TO LOWER WESTFIELD ROAD ON I-91 (INTERCHANGE 15)	0	38.5	\$1,700,000
2019	IN	Holyoke	607256	RESURFACING & RELATED WORK ON HERITAGE STREET, FRONT STREET & DWIGHT STREET FROM MAPLE ST TO THE 1ST LEVEL CANAL (.54 MILES)	25	46.0	\$2,874,096
2019	IN	Holyoke /West Springfield	604209	REHABILITATION OF ROUTE 5 (RIVERDALE ROAD), FROM I-91 (INTERCHANGE 13) TO MAIN STREET IN HOLYOKE & FROM ELM STREET TO NORTH ELM STREET IN WEST SPRINGFIELD (3.2 MILES)	0	50.0	\$4,457,830
2021	IN	Longmeadow	607430	RESURFACING & RELATED WORK ON LONGMEADOW STREET (ROUTE 5), FROM THE CT S.L. TO CONVERSE STREET (2.88 MILES)	25/75	34.4	\$2,737,800
	OUT	Longmeadow / Springfield	606469	RETAINING WALL REPLACEMENT/REHABILITATION ON I-91 (SB)	0		\$6,143,750
2019 SW CMAQ	IN	Northampton	606555	NORTHAMPTON- ROUNABOUT CONSTRUCTION AT INTERSECTION ROUTES 5/10 (NORTH KING STREET) & HATFIELD STREET	25	52.0	\$4,612,652
2021	IN	Northampton	607893	NORTHAMPTON- INTERSECTION IMPROVEMENTS @ ELM STREET, MAIN STREET, WEST STREET, STATE STREET & NEW SOUTH STREET	0	68.0	\$2,000,000
	OUT	Northampton	608161	NORTHAMPTON- RETAINING WALL REPLACEMENT AT CULVERT UNDER NORTH KING STREET (ROUTE 5&10), 300 FEET SOUTH OF COLES MEADOW ROAD (MM 25.4)	0	19.0	\$1,440,000
	OUT	Northampton	608413	NORTHAMPTON- ROCKY HILL GREENWAY MULTI-USE TRAIL, FROM THE MANHAN RAIL TRAIL TO ROCKY HILL ROAD (0.4 MILES)	0	27.0	\$588,830
	OUT	Northampton	605048	IMPROVEMENTS ON ROUTE 5 (MOUNT TOM ROAD) - FROM BRIDGE E-5-4 OVER THE MANHAN RIVER TO 850' SOUTH OF I-91 NB EXIT 18 RAMP (0.85 MILES)	0	40.0	\$1,200,112
2021	IN	Northampton	607502	INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	0	64.5	\$2,430,119
2018	IN	Northampton	608236 (old#18 0525)	NORTHAMPTON- RECCION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, IONSTRUNCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL	25	64.5	\$5,192,904
	OUT	Palmer	601504	RECONSTRUCTION OF ROUTE 32, FROM 765 FT. SOUTH OF STIMSON STREET TO 1/2 MILES SOUTH OF RIVER STREET (PHASE I) (1.63 MILES)	0	18.0	\$6,134,080
	OUT	Palmer	603873	RESURFACING & RELATED WORK ON ROUTE 20 - FROM EAST OF RTE 32 INTERSECTION EASTERLY TO MM 81.7 (2.0 MILES)	0	23.0	\$2,212,593
	OUT	Palmer	607372	PALMER- RECONSTRUCTION OF ROUTE 32, FROM 1/2 MILE SOUTH OF RIVER STREET TO THE WARE T.L. (PHASE II) (2.1 MILES)	0	14.0	\$8,476,770
	OUT	South Hadley	606452	RESURFACING & RELATED WORK ON ROUTE 116 (AMHERST ROAD), FROM WOODBRIDGE STREET TO PEARL STREET	0	20.5	\$1,630,070
	OUT	Southampton	607823	GREENWAY RAIL TRAIL CONSTRUCTION, FROM COLEMAN RD TO ROUTE 10 (3.5 MILES)	0	20	\$6,080,722
	OUT	Southampton	604653	REHABILITATION OF EAST STREET - FROM COLLEGE HIGHWAY EASTERLY TO COUNTY ROAD (2.6 MILES)	25	32.0	\$5,022,200
2018	IN	Southampton	604738	RECONSTRUCTION OF GLENDALE ROAD (PHASE II) FROM COLLEGE HIGHWAY (RT 10) NORTHWESTERLY TO POMEROY MEADOW RD (3,801 FEET)	75	18.8	\$2,295,000
	OUT	Southwick	604155	RESURFACING & RELATED WORK ON ROUTE 10/202, COLLEGE HIGHWAY (NORTHERLY SECTION) FROM THE WESTFIELD/SOUTHWICK T.L. TO TANNERY ROAD (1.4 MILES)	0	18.0	\$1,440,000

Table 12: Projects Awaiting Design and Funds (Appendix Z) (Cont.)

	OUT	Southwick	606141	RECONSTRUCTION OF FEEDING HILLS ROAD (ROUTE 57), FROM COLLEGE HIGHWAY TO THE AGAWAM T.L.	0	38.5	\$4,080,000
2018 SW CMAQ	IN	Springfield	607589	SPRINGFIELD- NORTH END PEDESTRIAN PATH CONSTRUCTION (UNDER THE CONNECTICUT RIVER RAILROAD), BETWEEN PLAINFIELD STREET AND BIRNIE AVENUE, INCLUDES CONSTRUCTION OF NEW BRIDGE S-24-044	0	24.0	\$4,320,000
2021 SW CMAQ	OUT	Springfield	608157	SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)	0	22.5	\$4,300,000
	OUT	Springfield	608411	Signalized Intersection Improvements Bay Street at Berkshire Avenue	0	40.5	\$1,800,000
	OUT	Wales	608163	WALES- RECONSTRUCTION & IMPROVEMENTS ON MONSON ROAD, FROM THE MONSON T.L. TO REED HILL ROAD (1.5 MILES)	0	39.5	\$3,452,400
	OUT	Wales	605669	PEDESTRIAN ACCESS IMPROVEMENTS & RELATED WORK ON ROUTE 19	0	9.0	\$312,500
2019	IN	Ware	607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	25	54.5	\$1,980,000
	OUT	Ware	603874	RESURFACING & RELATED WORK ON ROUTE 9, FROM .1 MILE WEST OF THE WARE T.L. EASTERLY TO MM 64.7 IN WARE (2.1 MILES)	0	14.5	\$1,273,145
	OUT	West Springfield	608374	This is a Complete Streets project for the Memorial Avenue (Route 147) corridor.	0	58.5	\$17,547,878
	OUT	West Springfield	604746	BRIDGE REPLACEMENT, W-21-006, CSX RAILROAD OVER UNION STREET	0	21.0	\$12,403,054
2019	IN	Westfield	607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STREET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II) Eastern Section	25	48.5	\$6,000,000
	OUT	Westfield	608073	WESTFIELD RIVER LEVEE MULTI-USE PATH CONSTRUCTION, FROM CONGRESS ST TO WILLIAMS RIDING WAY (NEAR MEADOW ST) (2MILES)	0	36	\$4,801,730
2018 HPP/STP	IN	Westfield	603449	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	25	57.5	\$4,800,000
2019 SW CMAQ	IN	Westfield	603783	COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION (CENTER DOWNTOWN SECTION), FROM EAST SILVER STREET TO COWLES COURT, INCLUDES W-25,014, W-25-015, W-25-016, W-25-017, W-25-018 & W-25-019	75	36.60	\$6,784,162
	OUT	Westfield	604445	RECONSTRUCTION ON ROUTE 187, INCLUDES REPLACEMENT OF W-25-002, SHERMAN'S MILL BRIDGE OVER GREAT BROOK AT PONTOOSIC ROAD	0	42.3	\$6,926,210
	OUT	Wilbraham	607990	RESURFACING & RELATED WORK ON ROUTE 20, FROM STONY HILL ROAD TO THE PALMER TOWN LINE (4.8 MILES)	0	36.0	\$5,699,340
	OUT	Williamsburg	607231	Reconstruction of High Street and Mountain Street	0	13.0	\$3,600,000
	OUT	Worthington	606912	Route 143 Reconstruction and Related Work	25	33.5	\$13,600,000
69 Total Projects							\$269,136,177

Table 13: Projects Awaiting Design and Funds (Appendix Z) (Cont.) High Priority Project Listing (HPP)

Project Description	City/Town	Project ID	Funding	Fed. Funds	State Funds	Total	Notes
Route 20 Access Improvements on Court Street & Western Avenue This reconstruction project on city-owned streets begins at Court Street at the intersection of Mill and High Street, and runs 0.2 miles westerly to Western Avenue, then westerly 2.25 miles to the intersection of Bates Road. The project will include traffic signal installation at Lloyd's Hill and an upgrade at Mill and High Streets	Westfield	603449	HPP-4287	\$2,002,950	\$500,738	\$2,503,688	
Route 32 Ware Road Reconstruction (\$22,854,850)	Palmer	601504	HPP-4287	\$2,303,744	\$575,936	\$2,879,680	#602844 was advertised on 9/30/06; #604443 was advertised on 8/8/09
		602844;					
		604443;					
Design and construction of Southwick and Westfield Rail Trail	Southwick/Westfield	603783	HPP-1656	\$1,857,506	\$464,377	\$46,779	#604451 was advertised on 9/1/2007
*Construct Access roads to Hospital Hill (\$1,652,818)	Northampton	604451	HPP-158	\$302,865	\$75,716	\$378,581	#604447 was advertised on 9/22/07
*State St. Corridor Redevelopment Project (\$18,052,897)	Springfield	604447	HPP-217	\$899,056	\$224,764	\$1,123,820	#602338 was advertised on 12/6/2008
*Design and construct 1.5 mile Red Stone Rail Trail(\$1,112,074)	East Longmeadow	602338	HPP-578	\$224,764	\$56,191	\$280,955	#604822 was advertised on 9/8/2007
*Intersection improvements Memorial Park II - Roosevelt Ave. (\$2,310,853)	Springfield	604822	HPP-836	\$149,843	\$37,461	\$187,304	
Design north and southbound ramps on I-91 at Exit 19 (\$15,000,000)	Northampton	604597	HPP-847	\$224,764	\$56,191	\$280,955	#124913 was advertised on 9/30/2000
Upgrade Route 9 - Calvin Coolidge bridge (1998) (\$31,840,515)	Hadley	124913	HPP - 862	\$83,828	\$20,957	\$104,785	
				\$8,049,320	\$2,012,330	\$10,061,650	
Total Project Cost							
Earmarks located in Appendix Z will remain un-oprogrammed until full project funding is available							

Projects list in appendix Z are shown for informational purposes and are not programmed in the TIP. If additional funds become available projects from this list could be added if the selected project would be ready for advertisement in that program year

V. Transit Project Listing for FFY 2017-2021

The following is a complete listing of programmed transit projects for FFY 2017-2021

Table 14: FFY 2017 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
5307	RTD0004707	Pioneer Valley Transit Authority	114406	Purchase/Renovate Shop Equipment		\$80,000	\$20,000	\$0	\$0	\$100,000
5307	RTD0004711	Pioneer Valley Transit Authority	442301	Planning		\$216,000	\$54,000	\$0	\$0	\$270,000
5307	RTD0004712	Pioneer Valley Transit Authority	117C00	ADA Operating Projects		\$1,213,341	\$303,335	\$0	\$0	\$1,516,676
5307	RTD0004713	Pioneer Valley Transit Authority	117A00	Preventive Maintenance		\$4,520,000	\$1,130,000	\$0	\$0	\$5,650,000
5307	RTD0004729	Pioneer Valley Transit Authority	119306	CONSTRUCT BICYCLE ACCESS, FACIL & EQUIP ON BUSES		\$4,000	\$1,000	\$0	\$0	\$5,000
5307	RTD0004709	Pioneer Valley Transit Authority	119308	Transit Enhancements: Signs/Lighting		\$8,000	\$2,000	\$0	\$0	\$10,000
5307	RTD0004728	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - Environmental Compliance		\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004708	Pioneer Valley Transit Authority	119302	Transit Enhancements: Shelters, benches, etc.		\$120,000	\$30,000	\$0	\$0	\$150,000
5307	RTD0003486	Pioneer Valley Transit Authority	114402	Rehab/Renovations: UMASS Maintenance Facility		\$80,000	\$20,000	\$0	\$0	\$100,000
5307	RTD0004710	Pioneer Valley Transit Authority	114220	Rehab/Renovation: Communications Systems (ITS)		\$2,408,435	\$602,109	\$0	\$0	\$3,010,544
5307	RTD0004731	Pioneer Valley Transit Authority	114302	CONSTRUCT - MAINT FACILITY, Spfld.O&M, Yr 3		\$1,962,074	\$14,900,000	\$0	\$0	\$16,862,074
5307	RTD0003445	Pioneer Valley Transit Authority	114402	Rehab/Renovations: Northampton Maintenance Facility		\$200,000	\$50,000	\$0	\$0	\$250,000
5307	RTD0004727	Pioneer Valley Transit Authority	111216	Purchase Replacement - Support Vehicles (2)		\$100,000	\$25,000	\$0	\$0	\$125,000
5307	RTD0004734	Pioneer Valley Transit Authority	114411	Purchase - Replacement: Supervisory Vehicles (2)		\$48,000	\$12,000	\$0	\$0	\$60,000
5307	RTD0005051	Pioneer Valley Transit Authority	114402	Facility Rehab: SATCO		\$1,400,000	\$350,000	\$0	\$0	\$1,750,000
5307	RTD0005150	Pioneer Valley Transit Authority	113303	TERMINAL, INTERMODAL (TRANSIT) - WESTFIELD		\$662,274	\$0	\$0	\$165,569	\$827,843
5307	RTD0004706	Pioneer Valley Transit Authority	111215	Purchase - Replacement: Vans (12)		\$625,038	\$156,260	\$0	\$0	\$781,298
					Subtotal	\$13,707,162	\$17,670,704	\$0	\$165,569	\$31,543,435

Table 14: FFY 2017 Transit Project Information (cont.)

					Subtotal	\$0	\$0	\$0	\$0	\$0
5310					Subtotal	\$0	\$0	\$0	\$0	\$0
5311					Subtotal	\$0	\$0	\$0	\$0	\$0
5337					Subtotal	\$0	\$0	\$0	\$0	\$0
5339										
5339	RTD0003800	Pioneer Valley Transit Authority	113303	TERMINAL, INTERMODAL (TRANSIT) - WESTFIELD		\$772,648	\$358,731	\$0	\$840,000	\$1,971,379
5339	RTD0005149	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (7)		\$349,558	\$87,390	\$0	\$0	\$436,948
					Subtotal	\$1,122,206	\$446,121	\$0	\$840,000	\$2,408,327
5320					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Federal					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Non-Federal					Subtotal	\$0	\$0	\$0	\$0	\$0
					Total	\$14,829,368	\$18,116,825	\$0	\$1,005,569	\$33,951,762

Table 15: FFY 2018 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
5307	RTD0004699	Pioneer Valley Transit Authority	117A00	Preventive Maintenance	2017 - \$4,633,000	\$4,633,000	\$1,158,250	\$0	\$0	\$5,791,250
5307	RTD0004700	Pioneer Valley Transit Authority	117C00	ADA Operating Projects	2017 - \$1,231,541	\$1,231,541	\$307,885	\$0	\$0	\$1,539,426
5307	RTD0004701	Pioneer Valley Transit Authority	442301	Planning	2017 - \$221,400	\$221,400	\$55,350	\$0	\$0	\$276,750
5307	RTD0004703	Pioneer Valley Transit Authority	114406	Rehab/Renovation: Shop Equipment	2017 - \$600,000	\$600,000	\$150,000	\$0	\$0	\$750,000
5307	RTD0004704	Pioneer Valley Transit Authority	119302	Transit Enhancements: Shelters	2017 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004705	Pioneer Valley Transit Authority	119308	Transit Enhancements: Signs/Lighting	2017 - \$12,000	\$12,000	\$3,000	\$0	\$0	\$15,000
5307	RTD0004724	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - Environmental Compliance	2017 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004725	Pioneer Valley Transit Authority	119306	CONSTRUCT BICYCLE ACCESS, FACIL & EQUIP ON BUSES	2017 - \$4,000	\$4,000	\$1,000	\$0	\$0	\$5,000
5307	RTD0004723	Pioneer Valley Transit Authority	114211	ACQUIRE - SUPPORT VEHICLES, (5)	2017 - \$336,000	\$336,000	\$84,000	\$0	\$0	\$420,000
5307	RTD0004714	Pioneer Valley Transit Authority	114220	Misc. Communications Systems and ITS	2017 - \$3,351,565	\$3,351,565	\$837,891	\$0	\$0	\$4,189,456
5307	RTD0003438	Pioneer Valley Transit Authority	114402	Rehab/Renovations: Northampton	2017 - \$260,000	\$260,000	\$65,000	\$0	\$0	\$325,000
5307	RTD0005027	Pioneer Valley Transit Authority	114411	Purchase - Replacement: Supervisory Vehicles (4)	2017 - \$96,000	\$96,000	\$24,000	\$0	\$0	\$120,000
5307	RTD0004702	Pioneer Valley Transit Authority	111216	Purchase - Replacement: Vans (13)	2017 - \$694,821	\$694,821	\$173,706	\$0	\$0	\$868,527
5307	RTD0005028	Pioneer Valley Transit Authority	114402	Rehab UMass Maint Facility	2017 - \$80,000	\$80,000	\$100,000	\$0	\$0	\$180,000
Subtotal						\$11,640,327	\$2,990,082	\$0	\$0	\$14,630,409
5309										
Subtotal						\$0	\$0	\$0	\$0	\$0
5310										
Subtotal						\$0	\$0	\$0	\$0	\$0
5311										
Subtotal						\$0	\$0	\$0	\$0	\$0
5337										
Subtotal						\$0	\$0	\$0	\$0	\$0
5339										
5339	RTD0005151	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (16)	2017 - \$837,347	\$837,347	\$209,337	\$0	\$0	\$1,046,684
Subtotal						\$837,347	\$209,337	\$0	\$0	\$1,046,684
5320										
Subtotal						\$0	\$0	\$0	\$0	\$0
Other Federal										
Subtotal						\$0	\$0	\$0	\$0	\$0

Table 15: FFY 2018 Transit Project Information (Continued)

Other Non-Federal									
Other Non-Federal	RTD0004735	Pioneer Valley Transit Authority	114302	CONSTUCT: MAINT FACILITY, Spfld.O&M, Yr 4	\$0	\$38,500,000	\$0	\$0	\$38,500,000
Other Non-Federal	RTD0003482	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - MAINTENANCE FACILITY, SATCO	\$0	\$750,000	\$0	\$0	\$750,000
Other Non-Federal	RTD0005026	Pioneer Valley Transit Authority	111204	BUY REPLACEMENT <30 FT BUS (3)	\$0	\$270,000	\$0	\$0	\$270,000
Subtotal					\$0	\$39,520,000	\$0	\$0	\$39,520,000
Total					\$12,477,674	\$42,719,419	\$0	\$0	\$55,197,093

Table 16: FFY 2019 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
5307	RTD0004717	Pioneer Valley Transit Authority	114406	REHAB/RENOVATE - SHOP EQUIPMENT	2018 - \$240,000	\$240,000	\$60,000	\$0	\$0	\$300,000
5307	RTD0004718	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - Environmental Compliance	2018 - \$120,000	\$120,000	\$30,000	\$0	\$0	\$150,000
5307	RTD0004719	Pioneer Valley Transit Authority	119302	CONSTRUCTION - BUS SHELTERS	2018 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004720	Pioneer Valley Transit Authority	119308	CONSTRUCT SIGNAGE	2018 - \$12,000	\$12,000	\$3,000	\$0	\$0	\$15,000
5307	RTD0004739	Pioneer Valley Transit Authority	442400	SHORT RANGE TRANSIT PLANNING	2018 - \$226,935	\$226,935	\$56,734	\$0	\$0	\$283,669
5307	RTD0004740	Pioneer Valley Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2018 - \$1,250,014	\$1,250,014	\$312,504	\$0	\$0	\$1,562,518
5307	RTD0004741	Pioneer Valley Transit Authority	117A00	PREVENTIVE MAINTENANCE	2018 - \$4,748,825	\$4,748,825	\$1,187,206	\$0	\$0	\$5,936,031
5307	RTD0004747	Pioneer Valley Transit Authority	114411	REHAB/RENOVATE - SUPERVISORY VEHICLES (5)	2018 - \$96,000	\$96,000	\$24,000	\$0	\$0	\$120,000
5307	RTD0004742	Pioneer Valley Transit Authority	116220	PURCHASE MISC COMMUNICATIONS EQUIP, IT systems	2018 - \$3,727,971	\$3,727,971	\$931,993	\$0	\$0	\$4,659,964
5307	RTD0003839	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - UMASS MAINTENANCE FACILITY	2018 - \$800,000	\$800,000	\$200,000	\$0	\$0	\$1,000,000
5307	RTD0004748	Pioneer Valley Transit Authority	114403	REHAB/RENOVATE - Holyoke ADMIN/MAINT FACILITY	2018 - \$400,000	\$400,000	\$100,000	\$0	\$0	\$500,000
5307	RTD0004722	Pioneer Valley Transit Authority	114401	REHAB/RENOVATE - ADMINISTRATIVE FACILITY	2018 - \$800,000	\$800,000	\$200,000	\$0	\$0	\$1,000,000
5307	RTD0004738	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN	2018 - \$18,399	\$18,399	\$7,584	\$0	\$0	\$25,983
					Subtotal	\$12,500,144	\$3,128,021	\$0	\$0	\$15,628,165
5309										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5310										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5311										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5337										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5339										
5339	RTD0005152	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (15)	2018 - \$849,907	\$849,907	\$212,477	\$0	\$0	\$1,062,384
					Subtotal	\$849,907	\$212,477	\$0	\$0	\$1,062,384
5320										
					Subtotal	\$0	\$0	\$0	\$0	\$0

Table 16: FFY 2019 Transit Project Information (Continued)

Other Federal					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
Other Non-Federal	RTD0004721	Pioneer Valley Transit Authority	119306	CONSTRUCT BICYCLE ACCESS, FACIL & EQUIP ON BUSES		\$0	\$5,000	\$0	\$0	\$5,000
Other Non-Federal	RTD0004737	Pioneer Valley Transit Authority	111206	BUY REPL ARTICULATED BUS (4)		\$0	\$2,135,672	\$0	\$0	\$2,135,672
Other Non-Federal	RTD0005031	Pioneer Valley Transit Authority	111201	BUY REPLACEMENT 40-FT BUS (15)		\$0	\$3,343,720	\$0	\$0	\$3,343,720
Other Non-Federal	RTD0004736	Pioneer Valley Transit Authority	111301	BUY 40-FT BUS FOR EXPANSION (6)		\$0	\$3,339,720	\$0	\$0	\$3,339,720
Other Non-Federal	RTD0004744	Pioneer Valley Transit Authority	111202	BUY REPLACEMENT 35-FT BUS (11)		\$0	\$2,741,326	\$0	\$0	\$2,741,326
Other Non-Federal	RTD0004715	Pioneer Valley Transit Authority	114211	ACQUIRE - REPL SUPPORT VEHICLES, (1)		\$0	\$75,000	\$0	\$0	\$75,000
Other Non-Federal	RTD0005422	Pioneer Valley Transit Authority	114302	CONSTUCT: MAINT FACILITY, Spfld.O&M, Yr 5		\$0	\$2,300,000	\$0	\$0	\$2,300,000
					Subtotal	\$0	\$13,940,438	\$0	\$0	\$13,940,438
					Total	\$13,350,051	\$17,280,936	\$0	\$0	\$30,630,987

Table 17: FFY 2020 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
5307	RTD0004753	Pioneer Valley Transit Authority	119202	PURCHASE BUS SHELTERS	2019 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004754	Pioneer Valley Transit Authority	119208	PURCHASE SIGNAGE	2019 - \$12,000	\$12,000	\$3,000	\$0	\$0	\$15,000
5307	RTD0004755	Pioneer Valley Transit Authority	119206	PURCHASE BICYCLE ACCESS, FACIL & EQUIP ON BUSES	2019 - \$4,000	\$4,000	\$1,000	\$0	\$0	\$5,000
5307	RTD0004760	Pioneer Valley Transit Authority	114402	Environmental Compliance	2019 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0004761	Pioneer Valley Transit Authority	442301	LONGTERM TRANS PLAN - SYSTEM LEVEL	2019 - \$232,608	\$232,608	\$58,152	\$0	\$0	\$290,760
5307	RTD0004762	Pioneer Valley Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2019 - \$1,287,796	\$1,287,796	\$321,949	\$0	\$0	\$1,609,745
5307	RTD0004763	Pioneer Valley Transit Authority	117A00	PREVENTIVE MAINTENANCE	2019 - \$4,867,546	\$4,867,546	\$1,216,886	\$0	\$0	\$6,084,432
5307	RTD0004733	Pioneer Valley Transit Authority	111206	BUY REPL ARTICULATED BUS (8)	2019 - \$5,900,587	\$5,900,587	\$1,449,191	\$0	\$1,449,191	\$8,798,969
5307	RTD0004751	Pioneer Valley Transit Authority	114411	REHAB/RENOVATE - SUPPORT VEHICLES (2)	2019 - \$120,000	\$120,000	\$30,000	\$0	\$0	\$150,000
5307	RTD0004745	Pioneer Valley Transit Authority	114406	REHAB/RENOVATE - SHOP EQUIPMENT	2019 - \$88,000	\$88,000	\$22,000	\$0	\$0	\$110,000
5307	RTD0004750	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VANS (4)	2019 - \$245,423	\$245,423	\$30,678	\$0	\$30,678	\$306,779
Subtotal						\$12,877,960	\$3,162,856	\$0	\$1,479,869	\$17,520,685
5309										
Subtotal						\$0	\$0	\$0	\$0	\$0
5310										
Subtotal						\$0	\$0	\$0	\$0	\$0
5311										
Subtotal						\$0	\$0	\$0	\$0	\$0
5337										
Subtotal						\$0	\$0	\$0	\$0	\$0
5339										
5339	RTD0005153	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (16)	2019 - \$875,595	\$875,595	\$109,450	\$0	\$109,450	\$1,094,495
Subtotal						\$875,595	\$109,450	\$0	\$109,450	\$1,094,495
5320										
Subtotal						\$0	\$0	\$0	\$0	\$0
Other Federal										
Subtotal						\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
Other Non-Federal	RTD0004743	Pioneer Valley Transit Authority	111201	BUY REPLACEMENT 40-FT BUS (5)		\$0	\$1,433,296	\$0	\$0	\$1,433,296
Other Non-Federal	RTD0004749	Pioneer Valley Transit Authority	111301	BUY 40-FT BUS FOR EXPANSION (6)		\$0	\$1,472,280	\$0	\$0	\$1,472,280
Other Non-Federal	RTD0005421	Pioneer Valley Transit Authority	114403	Rehab Northampton Maint Facility		\$0	\$2,300,000	\$0	\$0	\$2,300,000
Subtotal						\$0	\$5,205,576	\$0	\$0	\$5,205,576
Total						\$13,753,555	\$8,477,882	\$0	\$1,589,319	\$23,820,756

Table 18: FFY 2021 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
5307	RTD0004746	Pioneer Valley Transit Authority	111202	BUY REPLACEMENT 35-FT BUS (14)	2020 - \$5,902,440	\$5,902,440	\$1,140,615	\$0	\$1,140,615	\$8,183,670
5307	RTD0004757	Pioneer Valley Transit Authority	114411	REHAB/RENOVATE - SUPPORT VEHICLES (2)	2020 - \$120,000	\$120,000	\$30,000	\$0	\$0	\$150,000
5307	RTD0004758	Pioneer Valley Transit Authority	114411	REHAB/RENOVATE - SUPERVISORY VEHICLES (1)	2020 - \$24,000	\$24,000	\$6,000	\$0	\$0	\$30,000
5307	RTD0004764	Pioneer Valley Transit Authority	114406	REHAB/RENOVATE - SHOP EQUIPMENT	2020 - \$88,000	\$88,000	\$22,000	\$0	\$0	\$110,000
5307	RTD0005038	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - Environmental Compliance	2020 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0005039	Pioneer Valley Transit Authority	119402	BUS SHELTERS	2020 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
5307	RTD0005040	Pioneer Valley Transit Authority	119408	REHAB/RENOV SIGNAGE	2020 - \$12,000	\$12,000	\$3,000	\$0	\$0	\$15,000
5307	RTD0005041	Pioneer Valley Transit Authority	119406	REHAB/RENOV BICYCLE ACCESS, FACIL & EQUIP	2020 - \$4,000	\$4,000	\$1,000	\$0	\$0	\$5,000
5307	RTD0005045	Pioneer Valley Transit Authority	440000	PLANNING	2020 - \$238,424	\$238,424	\$59,606	\$0	\$0	\$298,030
5307	RTD0005046	Pioneer Valley Transit Authority	300900	ADA OPERATING ASSISTANCE	2020 - \$1,307,113	\$1,307,113	\$326,778	\$0	\$0	\$1,633,891
5307	RTD0005048	Pioneer Valley Transit Authority	117A00	PREVENTIVE MAINTENANCE	2020 - \$4,989,234	\$4,989,234	\$1,247,309	\$0	\$0	\$6,236,543
5307	RTD0004752	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (4)	2020 - \$265,920	\$265,920	\$32,740	\$0	\$32,740	\$331,400
					Subtotal	\$13,071,131	\$2,899,048	\$0	\$1,173,355	\$17,143,534
5309										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5310										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5311										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5337										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5339										
5339	RTD0005154	Pioneer Valley Transit Authority	111215	BUY REPLACEMENT VAN (16)	2020 - \$888,729	\$888,729	\$111,092	\$0	\$111,092	\$1,110,913
					Subtotal	\$888,729	\$111,092	\$0	\$111,092	\$1,110,913
5320										
					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Federal										
					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
Other Non-Federal	RTD0003471	Pioneer Valley Transit Authority	111201	BUY REPLACEMENT 40-FT BUS (21)		\$0	\$3,247,850	\$0	\$0	\$3,247,850
Other Non-Federal	RTD0005042	Pioneer Valley Transit Authority	116202	Information Technology Systems		\$0	\$1,694,542	\$0	\$0	\$1,694,542
					Subtotal	\$0	\$4,942,392	\$0	\$0	\$4,942,392
					Total	\$13,959,860	\$7,952,532	\$0	\$1,284,447	\$23,196,839

VI. STATEWIDE FEDERAL AID PROJECT LISTING

The MassDOT provided each planning agency a listing of statewide items anticipated for FFY 2017 to 2021. These items are to be funded separately from the regional TIP program. This information is provided in the following Tables.

VII. PROJECT IMPLEMENTATION

The TIP is also used as a management tool for monitoring the progress and implementation of the RTP and previous TIP's. The award status of FFY 2014-2015 TIP projects are identified in table 18.

Table 19 Project Implementation

Year	Highway Project Description	SID	Funding	Programmed	Status
2015	PELHAM- RECONSTRUCTION OF AMHERST ROAD, FROM 800 FEET EAST OF ENFIELD ROAD TO ROUTE 202 (2.5 MILES - PHASE II)	607207	STP	\$ 4,200,000	Construction
2015	SPRINGFIELD- NORTH END & BRIGHTWOOD INFRASTRUCTURE IMPROVEMENTS, FROM OSGOOD STREET TO THE CHICOPEE CITY LINE (NORTHERLY SEGMENT)	605222	STP	\$ 6,172,363	Construction
2015	CUMMINGTON- RETAINING WALL REPLACEMENT ON ROUTE 9 ADJACENT TO C-21-023 OVER WESTFIELD BROOK	606417	STP	\$ 1,500,000	Construction
2015	HADLEY- SIDEWALK & WHEELCHAIR RAMP CONSTRUCTION ON ROUTE 9	608023	STP	\$ 1,300,000	Awarded, Notice to Proceed expected
2015	HADLEY- SIGNAL & INTERSECTION IMPROVEMENTS AT ROUTE 9 (RUSSELL STREET) & ROUTE 47 (MIDDLE STREET)	604035	HSIP	\$ 3,038,060	Construction
2015	SPRINGFIELD - UNION STATION REDEVELOPMENT		CMAQ	\$ 315,970	Construction
2015	DISTRICT 2- SYSTEMATIC BRIDGE MAINTENANCE AT VARIOUS LOCATIONS	607515	BR-SP	\$ 1,849,536	Construction
2015	DISTRICT 2- SYSTEMATIC BRIDGE MAINTENANCE AT VARIOUS LOCATIONS	607468	BR-SP	\$ 2,771,540	Construction
2015	SPRINGFIELD- VIADUCT DECK REPLACEMENT OF S-24-061 ON I-91 (EARLY ACTION)	607731	NHPP	\$ 136,506,250	Construction
2015	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT ROUTE 5 (PLEASANT STREET) AND CONZ STREET - Roundabout	605066	Statewide CMAQ	\$ 2,106,590	Construction
2015	BERNARDSTON - WEST SPRINGFIELD - TRAFFIC SIGN REPLACEMENT ON INTERSTATE 91	605833	A/C	\$4,064,580	Construction
Year	Highway Project Description	SID	Funding	Programmed	Status
2016	LONGMEADOW- RESURFACING & RELATED WORK ON CONVERSE STREET, FROM LAUREL STREET TO DWIGHT STREET (2.04 MILES)	606445	STP	\$2,742,048	Not Advertised
2016	WESTFIELD- RECONSTRUCTION OF ROUTE 187 (LITTLE RIVER ROAD) AND SHAKER ROAD	604446	STP, TAP	\$6,206,561	Advertised
2016	WILBRAHAM- RECONSTRUCTION OF BOSTON ROAD (ROUTE 20) FROM DUDLEY STREET TO 400FT. EAST OF DUMAINE STREET (0.28MILES)	607869	STP	\$1,292,428	Not Advertised
2016	BRIMFIELD- STURBRIDGE- RESURFACING & RELATED WORK ON ROUTE 20, BEGINNING EAST OF NEW HOLLAND ROAD (MM 87.8), ENDING WEST OF GALILEO DRIVE (MM 91.9)	608022	STP	\$3,500,000	Advertised
2016	SPRINGFIELD- SIGNAL & INTERSECTION IMPROVEMENTS @ ROOSEVELT AVENUE & ISLAND POND ROAD, ROOSEVELT AVENUE & ALDEN STREET	605385	CMAQ, HSIP	\$2,297,372	Not Advertised
2016	WESTFIELD- COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION, NORTH SECTION - FROM COWLES COURT ACCESS RAMPS TO THE WESTFIELD RIVER BRIDGE INCLUDES REHAB OF W-25-036 (WESTFIELD RIVER CROSSING)	604968	CMAQ	\$3,004,516	Not Advertised
2016	SPRINGFIELD - UNION STATION REDEVELOPMENT		CMAQ	\$750,873	Under Construction
2016	SOUTH HADLEY- SIGNAL & INTERSECTION IMPROVEMENTS AT ROUTE 202 (GRANBY ROAD) & ROUTE 33 (LYMAN STREET)	607735	SW HSIP	\$550,000	Not Advertised
2016	SOUTHAMPTON - SAFE ROUTES TO SCHOOL - NORRIS ELEMENTARY SCHOOL (100%)	607453	SRS	\$832,000	Not Advertised
2016	SOUTHWICK- INTERSECTION IMPROVEMENTS AT FOUR LOCATIONS ON ROUTE 57 (FEEDING HILLS ROAD)	603477	SW CMAQ	\$3,551,223	Not Advertised
2016	WEST SPRINGFIELD - ADAPTIVE SIGNAL CONTROL ON ROUTE 5 (RIVERDALE STREET)	608280	SW HSIP	\$540,981	Not Advertised
2016	WEST SPRINGFIELD- CONNECTICUT RIVERWALK & BIKEWAY EXTENSION, FROM ELM STREET TO DOTY CIRCLE, INCLUDES PEDESTRIAN BRIDGE W-21-020	603730	SW-STP	\$ 1,840,736	Not Advertised

VIII. Air Quality Conformity Information

Since most all of Massachusetts (with limited exceptions) was designated on 5/21/12 by the United States Environmental Protection Agency as “unclassifiable/attainment” for the latest ozone standard, a conformity determination for the Pioneer Valley 2017-2021 TIP is not required for ozone. Conformity determination is however required for carbon monoxide. Further details and background information are provided below:

Carbon Monoxide

A new transportation conformity determinations for carbon monoxide is required for the 2017-2021 TIP in Central Massachusetts MPO (Worcester); Pioneer Valley MPO (Springfield); Boston MPO (Waltham and Boston Area); Northern Middlesex MPO (Lowell).

The Boston Carbon Monoxide Area (nine communities - Boston, Cambridge, Chelsea, Everett, Malden, Medford, Quincy, Revere, and Somerville) has a maintenance plan in place with a SIP-Approved 2010 motor vehicle carbon monoxide emission budget in place requiring a regional emission analysis for any carbon monoxide conformity determination of the Boston CO Area.

Limited Maintenance Plans are in place for Worcester; Springfield; Waltham and Lowell, hence regional emissions analyses are assumed to satisfy the budget test in these areas.

Ozone

As of July 20, 2013, Dukes County, Massachusetts [Dukes County Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts] is nonattainment, classification marginal, for the 2008 8-Hour Ozone National Ambient Air Quality Standard (NAAQS), also known as the 2008 ozone standard. However, Interagency Transportation Conformity Consultation has determined Dukes County, Massachusetts to be an isolated rural nonattainment area for the 2008 8-hour ozone standard. An ozone conformity determination is required when the isolated rural area (Dukes County) includes non-exempt projects in its STIP/TIP and TP. See 40 CFR Section 109(g) for conformity in isolated rural nonattainment and maintenance areas.

Introduction

The 1990 Clean Air Act Amendments (CAAA) require metropolitan planning organizations within nonattainment and maintenance areas to perform air quality conformity determinations prior to the approval of Long-Range Transportation Plans (LRTPs) and Transportation Improvement Programs (TIPs), and at such other times as required by regulation. A nonattainment area is one that the U.S. Environmental Protection Agency (EPA) has designated as not meeting certain air quality standards. A maintenance area is a nonattainment area that now meets the standards and has been re-designated as maintaining the standard. A conformity determination is a demonstration that plans, programs, and projects are consistent with the State Implementation Plan (SIP) for attaining the air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

The entire Commonwealth of Massachusetts was previously classified as nonattainment for ozone, and was divided into two nonattainment areas. The Eastern Massachusetts ozone nonattainment area included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties. Berkshire, Franklin, Hampden, and Hampshire counties comprised the Western Massachusetts ozone nonattainment area. With these classifications, the 1990 Clean Air Act Amendments (CAAA) required the Commonwealth to reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), the two major precursors to ozone formation to achieve attainment of the ozone standard.

As of April 22, 2002, the city of Springfield was re-designated as being in attainment for carbon monoxide (CO) with an EPA-approved limited maintenance plan. In areas with approved limited maintenance plans, federal actions requiring conformity determinations under the transportation conformity rule are considered to satisfy the "budget test" (as budgets are treated as not constraining in these areas for the length of the initial maintenance period). Any future required "project level" conformity determinations for projects located within this community will continue to use a "hot-spot" analysis to assure that any new transportation projects in this CO attainment area do not cause or contribute to carbon monoxide non-attainment.

Legislative and Regulatory Background

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

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

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

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

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

Also on May 21, 2012, the air quality designations areas for the 2008 NAAQS were published in the Federal Register. In this Federal Register, the only area in Massachusetts that was designated as nonattainment is Dukes County. All other Massachusetts counties were classified as unclassifiable/attainment. Therefore, conformity for ozone in the Pioneer Valley MPO does not require conformity under the current 2008 standard and the MPO does not need to perform a conformity determination for ozone on the program.

IX. Greenhouse Gas Monitoring and Evaluation

Introduction

This section summarizes the greenhouse gas (GHG) impacts that are anticipated to result from the projects that are included in this FFY 2017 – 2019 Transportation Improvement Program (TIP). It includes a summary of the state laws and policies that call for reducing greenhouse gas in order to mitigate global climate change, actions that are being to respond to these state laws and policies, the role of regional planning and TIP development in reducing GHG emission and tracking these reductions, and the projected GHG emission impacts from the projects programmed in the TIP.

State Policy Context

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



GreenDOT Policy

The transportation sector is the single largest emitter of greenhouse gases, accounting for over a third of GHG emissions, and therefore the transportation sector is a key focus of the *Clean Energy and Climate Plan*. MassDOT's approach to supporting the implementation of the plan is set forth in its GreenDOT Policy Directive, a comprehensive sustainability initiative that sets three principal objectives:

- **Reduce greenhouse gas (GHG) emissions.** MassDOT will achieve this by taking GHG emissions into account in all of its responsibilities, from strategic planning to project design and construction and system operations.
- **Promote the healthy transportation modes of walking, bicycling, and public transit.** MassDOT will achieve this by pursuing multi-modal, "complete streets" design standards; providing choice in transportation services; and by working with MPOs and other partners to prioritize and program a balance of projects that serve drivers, pedestrians, bicyclists, and public transit riders.
- **To support smart growth development.** MassDOT will achieve this by working with MPOs and other partners to make transportation investments that enable denser, smart growth development patterns that support reduced GHG emissions.
-

GreenDOT Policy and Metropolitan Planning Organizations

The Commonwealth's thirteen metropolitan planning organizations (MPOs) are integrally involved in helping to achieve the GreenDOT goals and supporting the GHG reductions mandated under the GWSA. The MPOs are most directly involved in helping to achieve the GHG emissions reductions under the second goal – to promote healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments – and assist in the third goal by supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. This will be realized through the transportation goals and policies espoused in the 2017 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 TIPs. The GHG tracking and evaluation processes enable the MPOs 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.

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 2035 RTPs, which were adopted in September 2011. This collaboration has continued for the MPO's 2040 RTPs and 2017-19 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. Using the Boston MPO's regional model and the statewide travel demand model for the remainder of the state, GHG emissions were projected for 2020 no-build and build conditions, and for 2040 no-build and build conditions.

All of the MPOs included these GHG emission projections in their RTPs, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

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

It is also important to monitor and evaluate the GHG impacts of the transportation projects that are programmed in the MPO Transportation Improvement Programs (TIP). The TIP includes both the larger, regionally-significant projects from the RTPs, which have already had their aggregate GHG impacts calculated and reported in the RTP, as well as smaller projects that are not included in the RTP but that may nevertheless have impacts on GHG emissions. The principal objective of this tracking is to enable the MPOs to evaluate expected GHG impacts of different projects and to use this information as a criterion for prioritizing and programming projects in future TIPs.

In order to monitor and evaluate the GHG impacts of TIP projects, MassDOT and the MPOs have developed the following approach for identifying anticipated GHG impacts and quantifying GHG impacts of projects, when appropriate, through the TIP. Different types of projects will have different anticipated GHG emissions impacts. The different project categories are outlined on the next two pages with this region's project tracking sheet on the third page.

Calculation of GHG Impacts for TIP Projects

The Office of Transportation Planning at MassDOT provided the spreadsheets that are used for determining Congestion Management and Air Quality Improvement (CMAQ) eligibility. These spreadsheets require the same inputs as the CMAQ calculations, and have been adapted to provide CO₂ impacts. The data and analysis required for these calculations is available from functional design reports that should be submitted for projects that would produce a measurable GHG impact.

Projects with Quantified Impacts

RTP Projects - Major capacity expansion projects would be expected to have a significant impact on GHG emissions. However, these projects are included in the RTPs and analyzed using the statewide model or Boston regional model, which would reflect their GHG impacts. Therefore, no independent TIP calculations are required.

- **Quantified Decrease in Emissions** - Projects that would be expected to produce a measurable decrease in emissions. The approach for calculating these impacts is described below. These projects should be categorized in the following manner:
- **Quantified Decrease in Emissions from Traffic Operational Improvement** - An intersection reconstruction or signalization project that is projected to reduce delay and congestion.
- **Quantified Decrease in Emissions from Pedestrian and Bicycle Infrastructure** - A shared-use path that would enable increased walking and biking and decreased vehicle-miles traveled (VMT).
- **Quantified Decrease in Emissions from New/Additional Transit Service** - A bus or shuttle service that would enable increased transit ridership and decreased VMT
- **Quantified Decrease in Emissions from a Park and Ride Lot** A park-and-ride lot that would enable increased transit ridership/ increased ridesharing and decreased VMT
- **Quantified Decrease in Emissions from Bus Replacement**
A bus replacement that would directly reduce GHG emissions generated by that bus service.
- **Quantified Decrease in Emissions from Complete Streets Improvements**
Improvements to roadway networks that include the addition of bicycle and pedestrian accommodations where none were present before.
- **Quantified Decrease in Emissions from Other Improvement**

Quantified Increase in Emissions – Projects that would be expected to produce a measurable increase in emissions

Projects with Assumed Impact

No Assumed Impact/Negligible Impact on Emission - Projects that do not change the capacity or use of a facility (e.g. a resurfacing project that restores a roadway to its previous condition, or a bridge rehabilitation/replacement that restores the bridge to its previous condition) would be assumed to have no GHG impact.

Assumed Nominal Decrease in Emissions - Projects that would be expected to produce a minor decrease in emissions that cannot be calculated with any precision. Examples of such projects include roadway repaving or reconstruction projects that add a new sidewalk or new bike lanes. Such a project would enable

increased travel by walking or bicycling, but there may be not data or analysis to support any projections of GHG impacts. These projects should be categorized in the following manner:

- Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure
- Assumed Nominal Decrease in Emissions from Bicycle Infrastructure
- Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure
- Assumed Nominal Decrease in Emissions from Intelligent Transportation Systems (ITS) and/or Traffic Operational Improvements
- Assumed Nominal Decrease in Emissions from Other Improvements

Assumed Nominal Increase in Emissions - Projects that would be expected to produce a minor increase in emissions that cannot be calculated with any precision.

Regional Greenhouse Gas Impact Summary Tables for FFY 2017 – 2019 TIP

The following tables summarize the calculated quantitative and assumed qualitative impacts of the projects included in the regional FFY 2017 – 2019 TIP.

APPENDICES

APPENDIX A: MassDOT Targets

TITLE 23 - TRANSPORTATION FUNDING

FEDERAL FISCAL YEAR 2017 FFY 2017-2021 STIP FEDERAL REGIONAL TARGETS DRAFT

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$585,525,568		
Redistribution, as Estimated by FHWA	\$29,474,432		
Total Estimated Obligation Authority Available:	\$615,000,000		
ABP GANS Repayment	\$59,150,000		
Total Non-Earmarked Available Statewide - (Including State Match)	\$555,850,000	\$125,768,056	\$681,618,056
Subtotal Statewide Infrastructure Items:	\$205,286,110	\$39,377,083	\$244,663,194
Subtotal Other Statewide Items:	\$51,986,729	\$12,996,682	\$64,983,411
Regional Major Infrastructure Projects:	\$7,200,000	\$1,800,000	\$9,000,000
Subtotal Federal Aid Bridge Program:	\$124,317,161	\$31,079,290	\$155,396,451
Total Regional Targets:			
CMAQ - Congestion Mitigation and Air Quality Improvement Program	\$25,000,000	\$6,250,000	\$31,250,000
HSIP - Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP - Transportation Alternatives Program	\$5,884,000	\$1,471,000	\$7,355,000
Regional Maximum Non-CMAQ / HSIP Component:	\$127,176,000	\$31,794,000	\$158,970,000
Total Regional Target	\$167,060,000	\$40,515,000	\$207,575,000

Region	Regional Share (%)	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional TAP Component With State Match	Total Regional Target With State Match	NonCMAQ/ HSIP/TAP with State Match
Berkshire Region	3.5596	\$355,964	\$1,112,389	\$0	\$7,388,931	\$5,920,578
Boston Region	42.9671	\$4,296,710	\$13,427,220	\$2,902,060	\$89,188,965	\$68,562,975
Cape Cod	4.5851	\$458,514	\$1,432,857	\$193,036	\$9,517,607	\$7,433,201
Central Mass	8.6901	\$869,013	\$2,715,666	\$984,220	\$18,038,539	\$13,469,640
Franklin Region	2.5397	\$253,975	\$793,671	\$0	\$5,271,878	\$4,224,233
Martha's Vineyard	0.3100	\$30,997	\$96,865	\$0	\$643,418	\$515,556
Merrimack Valley	4.4296	\$442,956	\$1,384,237	\$344,036	\$9,194,653	\$7,023,424
Montachusett	4.4596	\$445,955	\$1,393,611	\$120,756	\$9,256,919	\$7,296,597
Nantucket	0.2200	\$21,998	\$68,743	\$0	\$456,619	\$365,878
Northern Middlesex	3.9096	\$390,961	\$1,221,753	\$276,316	\$8,115,371	\$6,226,341
Old Colony	4.5595	\$455,954	\$1,424,858	\$337,265	\$9,464,473	\$7,246,397
Pioneer Valley	10.8099	\$1,080,992	\$3,378,100	\$1,250,000	\$22,438,689	\$16,729,598
Southeastern Mass	8.9601	\$896,010	\$2,800,033	\$947,311	\$18,598,936	\$13,955,582
Total:	100.00	\$10,000,000	\$31,250,000	\$7,355,000	\$207,575,000	\$158,970,000

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TITLE 23 - TRANSPORTATION FUNDING

FEDERAL FISCAL YEAR 2018 FFY 2017-2021 STIP FEDERAL REGIONAL TARGETS DRAFT

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$598,178,885		
Redistribution, as Estimated by FHWA	\$26,821,115		
Total Estimated Obligation Authority Available:	\$625,000,000		
ABP GANS Repayment	\$68,463,700		
Total Non-Earmarked Available Statewide - (Including State Match)	\$556,536,300	\$123,273,547	\$663,809,847
Subtotal Statewide Infrastructure Items:	\$206,772,409	\$37,082,574	\$227,854,984
Subtotal Other Statewide Items:	\$51,986,729	\$12,996,682	\$64,983,411
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Subtotal Federal Aid Bridge Program:	\$124,317,161	\$31,079,290	\$155,396,451
Total Regional Targets:			
CMAQ - Congestion Mitigation and Air Quality Improvement Program	\$20,000,000	\$5,000,000	\$25,000,000
HSIP - Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP - Transportation Alternatives Program	\$4,555,000	\$1,138,750	\$5,693,750
Regional Maximum Non-CMAQ / HSIP Component:	\$139,905,001	\$34,976,250	\$174,881,251
Total Regional Target	173,460,001	42,115,000	215,575,001

Region	Regional Share (%)	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional TAP Component With State Match	Total Regional Target With State Match	NonCMAQ/ HSIP/TAP with State Match
Berkshire Region	3.5596	\$355,964	\$889,911	\$0	\$7,673,703	\$6,427,827
Boston Region	42.9671	\$4,296,710	\$10,741,776	\$2,927,554	\$92,626,334	\$74,660,294
Cape Cod	4.5851	\$458,514	\$1,146,285	\$210,307	\$9,884,419	\$8,069,312
Central Mass	8.6901	\$869,013	\$2,172,533	\$475,200	\$18,733,750	\$15,217,005
Franklin Region	2.5397	\$253,975	\$634,937	\$0	\$5,475,067	\$4,586,146
Martha's Vineyard	0.3100	\$30,997	\$77,492	\$0	\$668,216	\$559,727
Merrimack Valley	4.4296	\$442,956	\$1,107,389	\$350,938	\$9,549,018	\$7,647,735
Montachusett	4.4596	\$445,955	\$1,114,889	\$85,141	\$9,613,684	\$7,967,699
Nantucket	0.2200	\$21,998	\$54,995	\$0	\$474,218	\$397,225
Northern Middlesex	3.9096	\$390,961	\$977,402	\$281,859	\$8,428,140	\$6,777,917
Old Colony	4.5595	\$455,954	\$1,139,886	\$345,114	\$9,829,237	\$7,888,282
Pioneer Valley	10.8099	\$1,080,992	\$2,702,480	\$540,000	\$23,303,483	\$18,980,011
Southeastern Mass	8.9601	\$896,010	\$2,240,026	\$477,637	\$19,315,744	\$15,702,071
Total:	100.00	\$10,000,000	\$25,000,000	\$5,693,750	\$215,575,001	\$174,881,251

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TITLE 23 - TRANSPORTATION FUNDING

FEDERAL FISCAL YEAR 2019 FFY 2017-2021 STIP FEDERAL REGIONAL TARGETS DRAFT

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$611,680,644		
Redistribution, as Estimated by FHWA	\$18,319,356		
Total Estimated Obligation Authority Available:	\$630,000,000		
ABP GANS Repayment	\$73,525,150		
Total Non-Earmarked Available Statewide - (Including State Match)	\$556,474,850	\$116,053,301	\$656,528,152
Subtotal Statewide Infrastructure Items:	\$206,710,960	\$29,862,329	\$220,573,289
Subtotal Other Statewide Items:	\$51,986,729	\$12,996,682	\$64,983,411
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Subtotal Federal Aid Bridge Program:	\$124,317,161	\$31,079,290	\$155,396,451
Total Regional Targets:			
CMAQ - Congestion Mitigation and Air Quality Improvement Program	\$20,000,000	\$5,000,000	\$25,000,000
HSIP - Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP - Transportation Alternatives Program	\$4,540,000	\$1,135,000	\$5,675,000
Regional Maximum Non-CMAQ / HSIP Component:	\$139,920,000	\$34,980,000	\$174,900,000
Total Regional Target	\$173,460,000	\$42,115,000	\$215,575,000

Region	Regional Share (%)	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional TAP Component With State Match	Total Regional Target With State Match	NonCMAQ/ HSIP/TAP with State Match
Berkshire Region	3.5596	\$355,964	\$889,911	\$0	\$7,673,703	\$6,427,827
Boston Region	42.9671	\$4,296,710	\$10,741,776	\$2,882,340	\$92,626,333	\$74,705,507
Cape Cod	4.5851	\$458,514	\$1,146,285	\$193,036	\$9,884,419	\$8,086,583
Central Mass	8.6901	\$869,013	\$2,172,533	\$488,961	\$18,733,750	\$15,203,244
Franklin Region	2.5397	\$253,975	\$634,937	\$0	\$5,475,057	\$4,586,146
Martha's Vineyard	0.3100	\$30,997	\$77,492	\$0	\$668,216	\$559,727
Merrimack Valley	4.4296	\$442,956	\$1,107,389	\$345,082	\$9,549,018	\$7,653,590
Montachusett	4.4596	\$445,955	\$1,114,889	\$85,118	\$9,613,684	\$7,967,722
Nantucket	0.2200	\$21,998	\$54,995	\$0	\$474,218	\$397,225
Northern Middlesex	3.9096	\$390,961	\$977,402	\$277,156	\$8,428,140	\$6,782,620
Old Colony	4.5595	\$455,954	\$1,139,886	\$338,242	\$9,829,237	\$7,895,154
Pioneer Valley	10.8099	\$1,080,992	\$2,702,480	\$537,500	\$23,303,483	\$18,982,511
Southeastern Mass	8.9601	\$896,010	\$2,240,026	\$527,565	\$19,315,744	\$15,652,143
Total:	100.00	\$10,000,000	\$25,000,000	\$5,675,000	\$215,575,000	\$174,900,000

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TITLE 23 - TRANSPORTATION FUNDING

FEDERAL FISCAL YEAR 2020 FFY 2017-2021 STIP FEDERAL REGIONAL TARGETS DRAFT

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$626,330,019		
Redistribution, as Estimated by FHWA	\$8,669,981		
Total Estimated Obligation Authority Available:	\$635,000,000		
ABP GANS Repayment	\$77,951,600		
Total Non-Earmarked Available Statewide - (Including State Match)	\$557,048,400	\$124,845,391	\$665,893,791
Subtotal Statewide Infrastructure Items:	\$203,200,308	\$37,633,368	\$224,833,676
Subtotal Other Statewide Items:	\$51,986,729	\$12,996,682	\$64,983,411
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Subtotal Federal Aid Bridge Program:	\$124,317,161	\$31,079,290	\$155,396,451
Total Regional Targets:			
CMAQ - Congestion Mitigation and Air Quality Improvement Program	\$20,000,000	\$5,000,000	\$25,000,000
HSIP - Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP - Transportation Alternatives Program	\$5,373,446	\$1,343,362	\$6,716,808
Regional Maximum Non-CMAQ / HSIP Component:	\$143,170,756	\$35,792,689	\$178,963,445
Total Regional Target	177,544,202	43,136,051	220,680,253

Region	Regional Share (%)	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional TAP Component With State Match	Total Regional Target With State Match	NonCMAQ/ HSIP/TAP with State Match
Berkshire Region	3.5596	\$355,964	\$889,911	\$30,410	\$7,855,431	\$6,579,146
Boston Region	42.9671	\$4,296,710	\$10,741,776	\$3,259,106	\$94,819,913	\$76,522,320
Cape Cod	4.5851	\$458,514	\$1,146,285	\$242,367	\$10,118,502	\$8,271,336
Central Mass	8.6901	\$869,013	\$2,172,533	\$560,767	\$19,177,403	\$15,575,090
Franklin Region	2.5397	\$253,975	\$634,937	\$21,697	\$5,604,718	\$4,694,110
Martha's Vineyard	0.3100	\$30,997	\$77,492	\$2,648	\$684,040	\$572,903
Merrimack Valley	4.4296	\$442,956	\$1,107,389	\$382,924	\$9,775,158	\$7,841,889
Montachusett	4.4596	\$445,955	\$1,114,889	\$122,343	\$9,841,355	\$8,158,168
Nantucket	0.2200	\$21,998	\$54,995	\$1,879	\$485,448	\$406,576
Northern Middlesex	3.9096	\$390,961	\$977,402	\$310,556	\$8,627,735	\$6,948,816
Old Colony	4.5595	\$455,954	\$1,139,886	\$378,017	\$10,062,013	\$8,088,156
Pioneer Valley	10.8099	\$1,080,992	\$2,702,480	\$629,850	\$23,855,357	\$19,442,035
Southeastern Mass	8.9601	\$896,010	\$2,240,026	\$774,242	\$19,773,180	\$15,862,901
Total:	100.00	\$10,000,000	\$25,000,000	\$6,716,808	\$220,680,253	\$178,963,445

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TITLE 23 - TRANSPORTATION FUNDING

FEDERAL FISCAL YEAR 2021 FFY 2017-2021 STIP FEDERAL REGIONAL TARGETS DRAFT

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$626,330,019		
Redistribution, as Estimated by FHWA	\$13,669,981		
Total Estimated Obligation Authority Available:	\$640,000,000		
ABP GANS Repayment	\$82,588,050		
Total Non-Earmarked Available Statewide - (Including State Match)	\$557,411,950	\$124,885,785	\$666,297,735
Subtotal Statewide Infrastructure Items:	\$203,563,858	\$37,673,762	\$225,237,620
Subtotal Other Statewide Items:	\$51,986,729	\$12,996,682	\$64,983,411
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Subtotal Federal Aid Bridge Program:	\$124,317,161	\$31,079,290	\$155,396,451
Total Regional Targets:			
CMAQ - Congestion Mitigation and Air Quality Improvement Program	\$20,000,000	\$5,000,000	\$25,000,000
HSIP - Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP - Transportation Alternatives Program	\$5,578,446	\$1,394,612	\$6,973,058
Regional Maximum Non-CMAQ / HSIP Component:	\$142,965,756	\$35,741,439	\$178,707,195
Total Regional Target	177,544,202	43,136,051	220,680,253

Region	Regional Share (%)	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional TAP Component With State Match	Total Regional Target With State Match	NonCMAQ/HSIP/TAP with State Match
Berkshire Region	3.5596	\$355,964	\$889,911	\$248,216	\$7,855,431	\$6,361,340
Boston Region	42.9671	\$4,296,710	\$10,741,776	\$2,996,121	\$94,819,913	\$76,785,305
Cape Cod	4.5851	\$458,514	\$1,146,285	\$319,725	\$10,118,502	\$8,193,978
Central Mass	8.6901	\$869,013	\$2,172,533	\$605,968	\$19,177,403	\$15,529,889
Franklin Region	2.5397	\$253,975	\$634,937	\$177,098	\$5,604,718	\$4,538,709
Martha's Vineyard	0.3100	\$30,997	\$77,492	\$21,614	\$684,040	\$553,937
Merrimack Valley	4.4296	\$442,956	\$1,107,389	\$308,876	\$9,775,158	\$7,915,937
Montachusett	4.4596	\$445,955	\$1,114,889	\$310,967	\$9,841,355	\$7,969,544
Nantucket	0.2200	\$21,998	\$54,995	\$15,339	\$485,448	\$393,117
Northern Middlesex	3.9096	\$390,961	\$977,402	\$272,619	\$8,627,735	\$6,986,753
Old Colony	4.5595	\$455,954	\$1,139,886	\$317,940	\$10,062,013	\$8,148,233
Pioneer Valley	10.8099	\$1,080,992	\$2,702,480	\$753,782	\$23,855,357	\$19,318,103
Southeastern Mass	8.9601	\$896,010	\$2,240,026	\$624,793	\$19,773,180	\$16,012,351
Total:	100.00	\$10,000,000	\$25,000,000	\$6,973,058	\$220,680,253	\$178,707,195

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APPENDIX B: Summary of Operation and Maintenance Expenditures

Massachusetts Department of Transportation - Highway Division
Summary of Operating and Maintenance Expenditures
Pioneer Valley Region - Part 1: Non-Federal Aid
as of May 20, 2016

Non Federal Aid Maintenance Projects - State Bondfunds

Program Group/Sub Group	Estimated SFY 2017 Expenditures	Estimated SFY 2018 Expenditures	Estimated SFY 2019 Expenditures	Estimated SFY 2020 Expenditures	Estimated SFY 2021 Expenditures
01 - Bridge Repair & Replacement					
New Bridge (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$6,109,582	\$5,811,887	\$5,334,009	\$5,751,826	\$5,632,574
Drawbridge Maintenance	\$0	\$0	\$0	\$0	\$0
Structures Maintenance	\$50,446	\$59,617	\$51,192	\$53,752	\$54,854
02 - Bridge Painting					
Painting - Structural	\$0	\$0	\$0	\$0	\$0
03 - Roadway Reconstruction					
Hwy Relocation (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Recon. - Added Capacity (Excluded)	n/a	n/a	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$0	\$0	\$0	\$0	\$0
Hwy Reconstr - No Added Capacity	\$0	\$0	\$0	\$0	\$0
Hwy Reconstr - Minor Widening	\$15,135	\$7,674	\$7,603	\$10,137	\$8,471
Hwy Reconstr - Major Widening	\$0	\$0	\$0	\$0	\$0
04 - Roadway Resurfacing					
Resurfacing	\$3,364,056	\$4,485,408	\$3,170,661	\$3,673,375	\$3,776,481
05 - Intersection & Safety					
Impact Attenuators	\$0	\$0	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0	\$0	\$0
Traffic Signals	\$2,797	\$3,730	\$2,176	\$2,901	\$2,935
06 - Signs & Lighting					
Electrical	\$2,241	\$747	\$996	\$1,328	\$1,024
Sign Installation / Upgrading	\$0	\$0	\$0	\$0	\$0
Structural Signing	\$0	\$0	\$0	\$0	\$0
07 - Guardrail					
Guard Rail and Fencing	\$0	\$0	\$0	\$0	\$0
08 - Maintenance					
Catch Basin Cleaning	\$0	\$0	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0	\$0	\$0
Landscaping	\$0	\$0	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0	\$0	\$0
Sewer and Water	\$1,273	\$424	\$566	\$755	\$582
Process/Recycle/Transprt Soils	\$0	\$0	\$0	\$0	\$0
Contract Hwy Maint.	\$0	\$0	\$0	\$0	\$0
09 - Facilities					
Chemical Storage Sheds	\$0	\$0	\$0	\$0	\$0
Vertical Construction	\$1,620,644	\$719,471	\$800,804	\$1,046,973	\$855,749
10 - Bikeways (Excluded)	n/a	n/a	n/a	n/a	n/a
11 - Other					
Demolition	\$1,946	\$2,447	\$1,464	\$1,953	\$1,955
Drilling & Boring	\$0	\$0	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0	\$0	\$0
Intelligent Transportation System	\$0	\$0	\$0	\$0	\$0
Marine Construction	\$0	\$0	\$0	\$0	\$0
Miscellaneous / No prequal	\$0	\$0	\$0	\$0	\$0
Reclamation	\$0	\$0	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0
Grand Total NFA:	\$11,168,121	\$11,091,405	\$9,369,471	\$10,542,999	\$10,334,625

Massachusetts Department of Transportation - Highway Division
Summary of Operating and Maintenance Expenditures
Pioneer Valley Region - Part 2: Federal Aid
as of May 20, 2016

Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2017 Expenditures	Estimated SFY 2018 Expenditures	Estimated SFY 2019 Expenditures	Estimated SFY 2020 Expenditures	Estimated SFY 2021 Expenditures
01 - Bridge Repair & Replacement					
New Bridge (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$11,766,434	\$14,189,816	\$15,020,673	\$13,658,974	\$14,289,821
Drawbridge Maintenance	\$0	\$0	\$0	\$0	\$0
Structures Maintenance	\$1,605,793	\$2,115,632	\$2,306,294	\$2,009,240	\$2,143,722
02 - Bridge Painting					
Painting - Structural	\$0	\$0	\$0	\$0	\$0
03 - Roadway Reconstruction					
Hwy Relocation (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Recon - Added Capacity (Excluded)	n/a	n/a	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$316,198	\$148,988	\$156,795	\$207,327	\$171,037
Hwy Reconstr - No Added Capacity	\$2,104,701	\$1,201,849	\$1,151,196	\$1,485,915	\$1,279,653
Hwy Reconstr - Minor Widening	\$3,399,215	\$3,352,586	\$3,110,731	\$3,287,511	\$3,250,276
Hwy Reconstr - Major Widening	\$0	\$0	\$0	\$0	\$0
04 - Roadway Resurfacing					
Resurfacing	\$13,666,518	\$13,154,628	\$12,539,076	\$13,120,074	\$12,937,926
05 - Intersection & Safety					
Impact Attenuators	\$0	\$0	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0	\$0	\$0
Traffic Signals	\$2,444,529	\$2,996,219	\$2,507,732	\$2,649,493	\$2,717,815
06 - Signs & Lighting					
Electrical	\$5,990	\$3,880	\$3,290	\$4,387	\$3,852
Sign Installation / Upgrading	\$133	\$178	\$104	\$138	\$140
Structural Signing	\$1,927,444	\$1,815,334	\$2,139,263	\$1,960,680	\$1,971,759
07 - Guardrail					
Guard Rail and Fencing	\$0	\$0	\$0	\$0	\$0
08 - Maintenance					
Catch Basin Cleaning	\$0	\$0	\$0	\$0	\$0
Contract Highway Maintenance	\$0	\$0	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0	\$0	\$0
Landscaping	\$201,931	\$269,241	\$358,989	\$276,720	\$301,650
Mowing and Spraying	\$0	\$0	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0	\$0	\$0
Process/Recycle/Transport Soils	\$0	\$0	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0	\$0	\$0
09 - Facilities					
Chemical Storage Sheds	\$0	\$0	\$0	\$0	\$0
Vertical Construction	\$0	\$0	\$0	\$0	\$0
10 - Bikeways (Excluded)	n/a	n/a	n/a	n/a	n/a
11 - Other					
Demolition	\$0	\$0	\$0	\$0	\$0
Drilling & Boring	\$0	\$0	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0	\$0	\$0
Intelligent Transportation System	\$422,646	\$416,377	\$391,844	\$410,289	\$406,170
Marine Construction	\$0	\$0	\$0	\$0	\$0
Miscellaneous / No prequal	\$0	\$0	\$0	\$0	\$0
Reclamation	\$0	\$0	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0
Grand Total Federal Aid:	\$37,861,533	\$39,664,727	\$39,685,986	\$39,070,749	\$39,473,821

APPENDIX C: Metropolitan Planning Area (MPA) State and Local Consulted Agencies

As required in MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141) consulted with agencies and officials responsible for other planning activities within the MPA (metropolitan planning area) that are affected by transportation (including State and local planned growth, economic development, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities

PVMPO fulfilled these requirements through the processes tied to the Joint Transportation Committee (JTC). Listed below are two tables, table 16 list agencies with transportation interest in the Metropolitan Planning Area (MPA) that were contacted for the purpose of consultation while developing the TIP. Table 17 lists the agencies from table 16 which responded and coordinated meetings were held during TIP development.

Table 16: Agencies Contacted

Agency	Agency Location
Westfield River Wild and Scenic Advisory Committee	Haydenville
MassDOT - Office of Transportation Planning	Boston
FEDERAL HIGHWAY ADMIN	Cambridge
US EPA	Boston
MassDOT	Boston
COUNCIL ON AGING	Granby
AIR QUALITY CONTROL (DEP)	Boston
FEDERAL TRANSIT ADMIN	Cambridge
MassDOT Highway Division District 1& 2	Northampton/Lenox
OFFICE OF SOCIAL CONCERN	Springfield
Economic Development Council of Western Mass	Springfield
PETER PAN BUS LINES, INC.	Springfield
Pioneer Valley Transit Authority (PVRTA)	Springfield
BARNES AIRPORT	Westfield
Pioneer Valley RR	Westfield
Bike/Ped Community (MassBike)	Williamsburg
UMASS Transit	Amherst
UMASS Traveler Information Center (RTIC)	Amherst
Columbia Greenway Rail Trail Committee	Westfield

These agencies are solicited to comment and provide relevant information during TIP development and are invited to attend all meetings and workshop involving project evaluation. Agendas and information in regards the TIP and its development are distributed by mail prior to meetings as outlined in the Public Participation Plan for the Pioneer Valley.

Table 17: Agencies Providing Consultation)

APPENDIX D: FAST Act Performance Management Information

The FHWA and FTA are jointly issuing this final rule to update the regulations governing the development of metropolitan transportation plans (MTP) and programs for urbanized areas, long-range statewide transportation plans and programs, and the congestion management process as well as revisions related to the use of and reliance on planning products developed during the planning process for project development and the environmental review process. The changes reflect the passage of the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act. The MAP-21 continues many provisions related to transportation planning from prior laws; however, it introduces transformational changes and adds some new provisions. The FAST Act makes minor edits to existing provisions. The changes make the regulations consistent with current statutory requirements and implement the following: A new mandate for State departments of transportation (hereafter referred to simply as "States") and metropolitan planning organizations (MPO) to take a performance-based approach to planning and programming; a new emphasis on the nonmetropolitan transportation planning process, by requiring States to have a higher level of involvement with nonmetropolitan local officials and providing a process for the creation of regional transportation planning organizations (RTPO); a structural change to the membership of the larger MPOs; a new framework for voluntary scenario planning; new authority for the integration of the planning and environmental review processes; and a process for programmatic mitigation plans.²

PVPC accomplishes these requirements through the recent update to the Transportation Evaluation Criteria (TEC) for the Pioneer Valley MPO. The table below shows the relationship between FAST act planning factors and our TEC criteria. The TEC criteria is mainly based of PVPC various data driven process which include Pavement, Congestion, Safety as well as other readily available data.

Fast Act Planning Factors Relationship to the Transportation Evaluation Criteria (TEC)

Factor	Fast Act 10 Planning Factors Description	TEC Scoring Criteria
1	Support the economic vitality of the metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.	Smart Growth and Economic Development, System Preservation, Modernization and Efficiency
2	Increase the safety of the transportation system for motorized and non-motorized users.	Safety and Security, Quality of Life
3	Increase the security of the transportation system for motorized and non-motorized users.	Safety and Security, Quality of Life
4	Increase the accessibility and mobility of people and for freight.	Mobility, Smart Growth and Economic Development
5	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.	Environment and Climate Change, Quality of Life, Livability, Smart Growth and Economic Development
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	Smart Growth and Economic Development, Mobility

² <https://www.federalregister.gov/articles/2016/05/27/2016-11964/statewide-and-nonmetropolitan-transportation-planning-metropolitan-transportation-planning#h-9>

7	Promote efficient system management and operation.	System Preservation, Modernization and Efficiency, Mobility
8	Emphasize the preservation of the existing transportation system.	System Preservation, Modernization and Efficiency
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	Environment and Climate Change
10	Enhancing travel and tourism.	Mobility, Quality of Life

