

---

# ES

## EXECUTIVE SUMMARY

### Federal Fiscal Years 2017-2021 Transportation Improvement Program

#### INTRODUCTION

The Boston Region Metropolitan Planning Organization's (MPO's) five-year transportation capital investment plan, the Transportation Improvement Program (TIP), is the near-term investment program for the region's transportation system. Guided by the MPO's vision, goals, and objectives, the TIP prioritizes investments that preserve the current transportation system in a state of good repair, provide safe transportation for all modes, enhance livability, and improve mobility throughout the region. These investments fund major highway reconstruction, arterial and intersection improvements, maintenance and expansion of the public transit system, bicycle path construction, and improvements for pedestrians.

The Boston Region MPO is a 22-member board with representatives of state agencies, regional organizations, and municipalities; its jurisdiction extends from Boston north to Ipswich, south to Duxbury, and west to Interstate 495. Each year, the MPO conducts a process to decide how to spend federal transportation funds for capital projects. The

Central Transportation Planning Staff (CTPS), which is the staff to the MPO, manages the TIP-development process.

MPO staff coordinate evaluation of project requests, propose programming of current and new projects based on anticipated funding levels, support the MPO in developing a draft document, and facilitate a public review of the draft before the MPO endorses the final document.

#### FEDERAL FISCAL YEARS 2017-2021 TIP OVERVIEW

The federal fiscal years (FFYs) 2017-2021 TIP consists of transportation investments in the Highway Program and Transit Program. These investments reflect the MPO's goal of targeting a majority of transportation resources to preserve and modernize the existing roadway and transit system and maintain them in a state of good repair.

This TIP also devotes a significant portion of funding for the targeted expansion of the rapid transit system and new shared-use paths. In addition, a number of the infrastructure investments in this TIP address

needs identified in the MPO's Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*, or implement recommendations from past studies and reports that were funded through the MPO's Unified Planning Work Program (UPWP). The TIP also supports the Massachusetts Department of Transportation (MassDOT)'s strategic priorities of:

- **Reliability:** Maintain and improve overall condition and reliability of the transportation system
- **Modernization:** Modernize the transportation system to make it safer and more accessible to accommodate growth
- **Expansion:** Expand diverse transportation options for communities throughout the Commonwealth

## FFYS 2017–2021 TIP INVESTMENTS

### Transit Program

The Transit Program of the TIP provides funding for projects and programs that address the capital needs prioritized by the three transit agencies in the region: the Massachusetts Bay Transportation Authority (MBTA), the Cape Ann Transportation Authority (CATA), and the MetroWest Regional Transit Authority (MWRTA). The Transit Program is predominantly dedicated to achieving and maintaining a state of good repair for all assets throughout the transit system.

### Highway Program

The Highway Program of the TIP funds the priority transportation projects advanced by MassDOT and the cities and towns within the 101-municipality MPO region. The program is devoted primarily to preserving and modernizing the existing roadway network through resurfacing highways, replacing bridges, and reconstructing arterial roadways.



## FINANCING THE FFYS 2017–2021 TIP

### Transit Program

The Federal Transit Administration (FTA) allocates the funds programmed in the TIP Transit Program by formula. The three regional transit authorities in the Boston Region MPO area that are recipients of these funds are the MBTA, CATA, and MWRTA. The MBTA, with its extensive transit program and infrastructure, is the recipient of the preponderance of the region's federal transit funds.

Under the federal transportation legislation, Fixing America's Surface Transportation (FAST) Act, funding is allocated by the following categories:

- **Section 5307 (Urbanized Area Formula Grants):** Provides grants to urbanized areas to support public transportation based on their levels of transit service, population, and other factors
- **Section 5337 (Fixed Guideway/Bus):** Seeks to maintain public transportation systems in a state of good repair through replacement and rehabilitation capital projects
- **Section 5339 (Bus and Bus Facilities):** Provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities
- **Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities):** Provides funding to support transportation to meet the special needs of older adults and persons with disabilities

### Highway Program

The TIP Highway Program was developed with the assumption that federal funding would range between \$615- and-\$640 million annually over the next five years. In Massachusetts, federal highway program funding is allocated to several main funding categories.

First, MassDOT allocates federal funding to Grant Anticipation Notes (GANs) payments. During the five years of this TIP, more than \$360 million of the Highway Program is dedicated to GANs payments for the Accelerated Bridge Program. MassDOT matches the remaining amount of federal funding with an 80 percent (federal) and 20 percent (state) split.

Next, MassDOT allocates funding across the following funding categories:

- **Statewide Infrastructure Items:** Interstate highway maintenance, intelligent transportation systems, Safe Routes to School programs, and other infrastructure needs
- **Bridge Program:** Replacement or rehabilitation of public bridges
- **Regional Major Infrastructure Projects:** Modernization of major highway infrastructure (funding for this category will conclude in 2017 after reconstruction of the I-91 Viaduct in Springfield has been completed)
- **Other Statewide Items:** Change orders for existing contracts

After these needs have been satisfied, MassDOT allocates the remaining funding among the state's MPOs for programming. This discretionary funding for

MPOs is sub-allocated by formula to determine “Regional Target” amounts. MassDOT develops these targets in consultation with the Massachusetts Association of Regional Planning Agencies.

Each MPO may decide how to prioritize their Regional Target funding. The TIP Highway Program details both the projects that will receive Regional Target funding from the Boston Region MPO and statewide infrastructure projects within the Boston Region MPO area.

## THE TIP DEVELOPMENT PROCESS

### Overview

In order to determine which projects to fund through the Regional Target funding process, MPO members collaborate with municipalities, state agencies, members of the public, advocacy groups, and other stakeholders. The MPO’s project-selection process uses evaluation criteria to help identify and prioritize projects that advance the MPO’s goals:

- Safety
- System Preservation
- Capacity Management/Mobility
- Clean Air/Clean Communities
- Transportation Equity
- Economic Vitality

These goals also shape a series of MPO investment programs, which are designed to direct Regional Target funding towards MPO priority areas over the next 25 years:

- Intersection Improvements
- Complete Streets
- Major Infrastructure
- Bicycle Network and Pedestrian Connections
- Community Transportation/Parking/Clean Air and Mobility

Projects that the MPO will select to receive Regional Target Funding through the MPO’s TIP Development Process are included in one of these five programs.

### Outreach and Data Collection

The outreach process begins early in the federal fiscal year, when cities and towns designate TIP contacts and begin developing a list of priority projects to be considered for federal funding. Each November, MPO staff ask the staffs of cities and towns in the region to identify their priority projects.

MPO staff compile the project funding requests into a Universe of Projects list for the MPO, which consists of all identified projects being advanced for possible funding. The Universe includes projects that are fully designed and ready to be advertised for construction, those that are undergoing preliminary engineering and design, as well as projects still in the conceptual or planning stage. MPO staff also collect data on each project in the Universe so that the projects can be evaluated.

### Project Evaluation

Once project updates are complete, staff evaluates projects based on how well they address the MPO’s goals.

This year, staff completed evaluations for more than 50 projects. A basic level of design is needed to provide enough information to fully evaluate a potential TIP project. The evaluation results are posted on the MPO's website, allowing municipal officials and members of the public to view them and provide feedback.

### **Staff Recommendation and Draft TIP**

Using the evaluation ratings and information about project-readiness (when a project likely would be fully designed and ready for construction), staff prepare a First-Tier List of Projects. This list cites the projects that both earned the highest ratings, and which could be made ready for advertising within the TIP's time horizon—the next five federal fiscal years (FFYs).

MPO staff then prepare a recommendation for the TIP based on their First-Tier list, among other factors, such as whether a project was included in the LRTP, equity of investments across the region, and if sufficient funding is available for the proposed projects. The staff recommendation proposes the projects to be funded with the MPO's Regional Target funding over the next five years.

The staff recommendation is always financially constrained. This year, there was approximately \$440 million available for MPO Regional Target projects in FFYs 2017–2021. The MPO discussed the staff recommendation for the discretionary highway target program in June.

### **APPROVING THE TIP**

The MPO considers the evaluation results, First-Tier List of Projects, and staff recommendation when

prioritizing which projects should receive Regional Target funding. In addition to prioritizing the Regional Target funding, the MPO also reviews the Statewide Infrastructure Items and Bridge Programs, as well as the capital programs for the MBTA, CATA, and MWRTA before voting to release a draft TIP for public review.

In June 2016, the MPO voted to release the draft FFYs 2017–2021 TIP for a 30-day public comment period, during which the MPO invited members of the public, regional and local officials, and other stakeholders in the Boston region to review the proposed program. During the public comment period, several outreach sessions typically are held to solicit additional comments on the draft TIP.

After the comment period ends, the MPO reviews all municipal and public comments and makes changes to the document as appropriate. It then endorses the TIP and submits it to Federal Highway Administration (FHWA) and the FTA for approval. MassDOT incorporates the MPO-endorsed TIP into the State Transportation Improvement Program (STIP). The FHWA, FTA and US Environmental Protection Agency (EPA) review the STIP for certification by September 30, the federal fiscal year-end.

### **REGIONAL TARGET PROGRAM DETAILS**

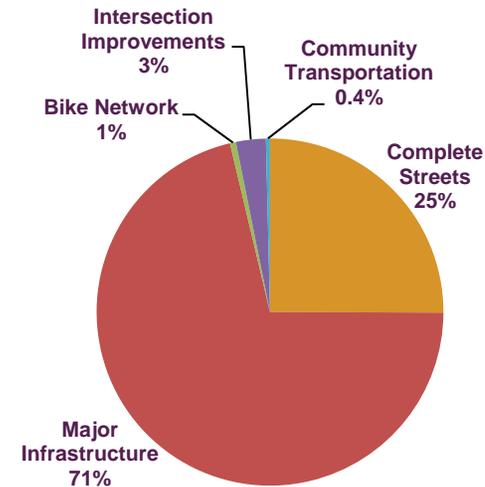
The MPO's Target Program is devoted primarily to modernizing and expanding the transportation network through major infrastructure and Complete Streets investments, as shown in Figure ES-1 (which indicates how the Regional Target funding is distributed across these the MPO's investment programs).

During FFYs 2017–2021, the Boston Region MPO plans to fund 28 projects and programs with its Regional Target funding:

- 14 Complete Streets projects, such as reconstructing Ferry Street in Everett
- Nine Major Infrastructure projects, such as reconstructing and widening Route 18 in Weymouth
- Three Intersection Improvements projects, such as Derby, Whiting, and Gardner Streets in Hingham
- One Bicycle Network and Pedestrian Infrastructure project to extend the Canal Street Rail Trail in Salem
- One Community Transportation program to support first-mile/last-mile connections across the region

Collectively, these investments will improve nearly 70 lane miles of substandard pavement and serve 780,000 vehicles daily (including more than 1400 bus trips). These improvements are anticipated to reduce passenger delay by nearly 7,900 hours and add more than 50 miles to the region’s bicycle network.

FIGURE ES-1  
FFYS 2017-21 TIP REGIONAL TARGET FUNDING, BY  
INVESTMENT PROGRAM TYPE

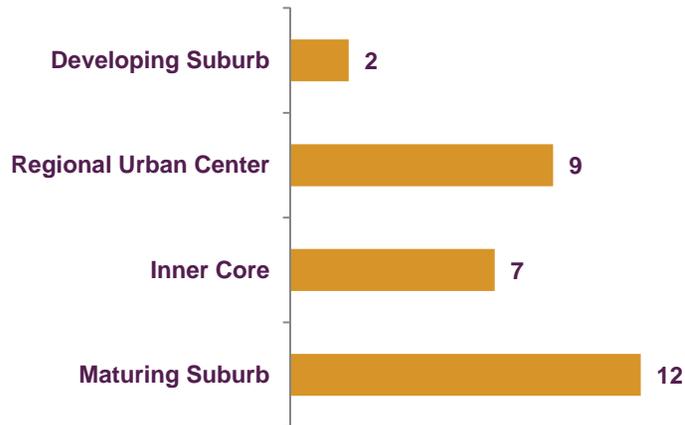


**Boston Region Target Funds:  
\$464 million**

Data Source: CTPS.

These investments will be implemented in 17 cities and towns throughout the MPO region. Figure ES-2 identifies these 17 municipalities by their Metropolitan Area Planning Council (MAPC) community type.

FIGURE ES-2  
MPO MUNICIPALITIES CONTAINING FFYS 2017-2021 TIP  
HIGHWAY PROGRAM PROJECTS, BY MAPC COMMUNITY  
TYPE



Data Source: CTPS

## UPDATES TO THE TIP

Even after the TIP has been finalized, administrative modifications and amendments often must be introduced because of changes in project status, project cost, or available revenues. This may necessitate reprogramming a project to a later funding year or programming additional funds for a project.

Notices of amendments and administrative modifications are posted on the MPO's website. If an amendment is necessary, the Regional Transportation Advisory Council is informed, and the MPO notifies affected municipalities and other stakeholders via email. The MPO holds a 30-day public comment period before taking action on an amendment. Administrative modifications are

generally minor adjustments that usually do not warrant a public comment period.

## STAY INVOLVED WITH THE TIP

Public input is an important aspect of the transportation-planning process. Please visit [www.bostonmpo.org](http://www.bostonmpo.org) for more information about the MPO, to view the full TIP, and to submit your comments. You also may want to sign up for our email news updates by contacting us at [publicinformation@ctps.org](mailto:publicinformation@ctps.org).

To request a copy of the TIP in CD or accessible formats, please contact us by any of the following means:

Mail: Boston Region MPO c/o CTPS  
Certification Activities Group  
10 Park Plaza, Suite 2150  
Boston, MA 02116-3968

Telephone: 857.702.3700

TTY: 617.973.7089

Fax: 617.570.9192

Email: [tip@ctps.org](mailto:tip@ctps.org) or  
[publicinformation@ctps.org](mailto:publicinformation@ctps.org)