

**MBTA Federal Capital Program - FTA Formula Funds**  
**FFY 2019-2023 TIP - Project Descriptions Provided for Informational Purposes**  
**Presented to the Boston MPO on 3/15/2018**

TIP Project Name	Project Description
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**5307 - Revenue Vehicle Program**

DMA Bus Replacement	Procurement of 60-foot Dual Mode Articulated (DMA) buses to replace the existing fleet of 32 Silver Line Bus Rapid Transit buses and to provide for ridership expansion projected as a result of Silver Line service extension to Chelsea.
Green Line Light Rail Fleet Replacement - Design	Development of technical specifications for the procurement of light rail vehicles to replace the existing fleet that is approaching the end of its service life.
Green Line Train Protection	Procurement and installation of on-board and wayside equipment for a train monitoring system to determine allowable train separation, based on speed and location, and to prevent vehicles from passing a red signal.
Locomotive Overhaul	Overhaul of locomotives in operation on commuter rail lines systemwide in order to improve reliability.
MBTA Catamaran Overhaul	Replacement of major systems and refurbishment of seating and other customer facing components on two catamarans (Lightning and Flying Cloud).
Midlife Overhaul of 25 New Flyer Allison Hybrid 60 ft Articulated Buses	Overhaul of 25 hybrid buses, brought into service in 2009 and 2010, to enable optimal reliability through the end of their service life.
Overhaul of 33 Kawasaki 900 Series Bi-Level Coaches	Overhaul and upgrade of existing systems on commuter rail coaches that were brought into service in 2005 to enable optimal reliability through the end of their service life.
Procurement of Bi-Level Commuter Rail Coaches	Procurement of bi-level commuter rail coaches to replace existing cars that have exceeded their service life.
Procurement of 194 New Flyer Hybrid 40 ft Buses	Procurement of 40-foot buses with hybrid propulsion to replace Emission Controlled Diesel (ECD) buses that have reached the end of their service life.
Procurement of Battery Electric 40 ft Buses and Related Infrastructure (5307)	Procurement of up to 35 Battery Electric 40-ft. buses and supporting infrastructure to replace the existing electric trolley bus fleet and to serve as a pilot for determining bus propulsion technologies for future procurements. (Funded from both 5307 and 5339.)
Procurement of 40 ft Buses	Procurement of 40-foot electric and hybrid buses for replacement of diesel bus fleet.
Red Line No. 3 Car - Targeted Reliability Improvements	Overhaul and upgrade of selected systems on Red Line fleet vehicles to extend service life until planned replacement.

**5307 - Stations and Facilities Program**

Bus Route Safety and Service Improvements	To address accessibility, safety and operational deficiencies at select bus stops systemwide.
Charlestown Bus - Seawall Rehab	Rehabilitation of existing seawall to protect bus maintenance facility from future storm and flooding events.

**5307 - Signals/Systems Upgrade Program**

Green Line - Central Tunnel Interlocking Signals	To provide for the removal and the replacement of the existing 25 cycle signal system and associated wayside equipment at Government Center, Copley and Park Street Interlockings.
Green Line Riverside to Reservoir - Signal & Track Work	Replacement of track and signal system components on the Highland Branch of the Green Line from Reservoir to Riverside Stations, including replacement of obsolete 25 Hz track circuits with modern solid-state 100 Hz track circuits.

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**5337 - Bridge and Tunnel Program**

Bridge Bundling Contract (6 Bridges)	Replacement of 6 commuter rail bridges: Lynn Fells Parkway in Melrose (Haverhill Line); Parker Street in Lawrence (Haverhill Line); Commercial Street in Lynn (Newburyport/Rockport Line); Bacon Street in Wellesley (Worcester Line); Intervale Road in Weston (Worcester Line); and High Line Bridge in Somerville (Lowell Line).
Bridge Design / Inspection & Rating Program	Inspection of bridge assets systemwide for determination of asset condition ratings and subsequent prioritization and scoping for repairs to select bridges.
Bridge Repair Program	Repairs to bridges systemwide, based on asset condition as determined by systemwide inspections.
North Station Draw 1 Bridge Replacement	Replacement of the North Station commuter rail drawbridge (Draw 1). Funding source under review.
Tunnel Rehabilitation Program	Repair and rehabilitation of transit tunnels systemwide

**5337 - Stations and Facilities Program**

Newton Commuter Rail Stations Study	For a conceptual design and operational analysis study of the Newton commuter rail stations, with additional funding for various accessibility and infrastructure improvements
Commonwealth Ave Stations Access	Addressing accessibility issues along the B branch of the Green Line along Commonwealth Avenue
Downtown Crossing Vertical Transportation Improvements Phase 2	Construction of two new redundant elevators, in order to improve accessibility and to provide for future elevator maintenance without rendering the station temporarily inaccessible.
Forest Hills Improvement Project	Improvements at Forest Hills Station on the Orange Line and Needham Commuter Rail Line to comply with ADA and Massachusetts Architectural Access Board (MAAB) accessibility standards. Work will also include infrastructure and other improvements (e.g., wayfinding signage, installation of tactile platform edges).
Harvard Square Busway Repairs	Rehabilitation of roadway, drainage and catenary infrastructure at the Harvard Square Busway.
Hingham Ferry Dock Modification	Construction of a new, full accessible ferry dock at the Hingham Ferry Terminal located at Hewitts Cove in the Weymouth Back River in Hingham, MA
Iron Horse Operations Control Center	Construction of Iron Horse Park Operations Control Center building to provide an updated dispatch facility for Commuter Rail North (CRN) and Pan Am freight and to house the back-up Positive Train Control (PTC) data center.
Natick Center Station Accessibility Project	Accessibility improvements at the Natick Center commuter rail station on the Framingham/Worcester Line.
Newton Highlands Green Line Station Accessibility Project	Improvements at Newton Highlands station on the D branch of the Green Line to comply with ADA and Massachusetts Architectural Access Board (MAAB) accessibility standards.
Oak Grove Station Vertical Transportation Improvements	Retrofit of the existing Oak Grove station on the Orange Line to bring it into full compliance with ADA standards, including the replacement of existing elevators, construction of two new elevators, various parking and path of travel upgrades.
Old South Meeting House Leak Repairs	Remediation of leaks along the wall of the Old South Meeting House resulting from the construction of an entrance to State Street Station

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Park Street Station Wayfinding Improvements Construction	Replacement of existing signage with updated ADA-compliant standard graphics at the lobby, Green Line platform, Red Line platform and Winter Street concourse as well as related architecture improvements such as lighting and illuminated exit signs.
Ruggles Station Upgrade - Accessibility (Design)	Design for future accessibility improvements at Ruggles Station.
Savin Hill Underpass	Rehabilitation of underpass at the Savin Hill Red Line Station in Boston
South Attleboro Station Improvements	Needs assessment and design services associated with accessibility, structural, parking and multi-modal facility improvements for the South Attleboro commuter rail station.
Symphony Station Improvements	Upgrades to the existing Symphony Station on the Green Line in order to provide a modern, accessible, code-compliant facility
Winchester Center Station	Renovation and accessibility improvements to Winchester Center Station on the Lowell and Haverhill commuter rail lines.

**5337 - Elevator and Escalator Program**

Elevator Program Multiple Location Design	Design for the installation of new redundant elevators and the replacement of existing elevators systemwide.
Priority Replacement and Redundant Elevator Program	Installation of new redundant elevators and the replacement of existing elevators at various stations, in order to mitigate degradation of station elevators and to maintain station accessibility during elevator maintenance.

**5337 - Signals/Systems Upgrade Program**

45 High Street Improvements	Infrastructure improvements and data center upgrades at the MBTA's 45 High Street facility.
Infrastructure Asset Management Program Phase 1	Collection of infrastructure based asset data in order to update the SGR Database and manage asset and life cycle/risk management practices.
North Station Terminal Signal Improvements	Upgrades to the commuter rail signal/communication system in the North Station area required for more efficient phasing of future track alignments, including support for the future Draw 1 Bridge Replacement Project.
Signal Program - Red/Orange Line	Various signal upgrades and improvements along both the Red and Orange Lines

**5339 - Bus Program**

Procurement of Battery Electric 40 ft Buses and Related Infrastructure (5339)	Procurement of up to 35 Battery Electric 40-ft. buses and supporting infrastructure to replace the existing electric trolley bus fleet and to serve as a pilot for determining bus propulsion technologies for future procurements. (Funded from both 5307 and 5339.)
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Note: Project descriptions are preliminary only and are provided for informational purposes. In many cases, the scopes of work will become more fully developed as the design process proceeds and is completed.