

MBTA Capital Program - Federal Funding
FFY 2023-2027 Transportation Improvement Program (TIP) Amendment Four - April 2023

Federal Funding Program		2023	2024	2025	2026	2027	FFY23-27 Total (Federal)	FFY23-27 Total (Incl. Match)
5307		\$273,837,865	\$193,628,164	\$197,611,190	\$202,682,910	\$202,682,910	\$1,070,443,039	\$1,338,053,799
Bridge & Tunnel Program	12.24.05	\$0	\$0	\$26,234,709	\$26,234,709	\$26,234,709	\$78,704,127	\$98,380,159
Revenue Vehicle Program	12.12.00	\$160,198,106	\$59,283,688	\$101,373,367	\$106,445,087	\$106,445,087	\$533,745,335	\$667,181,669
Signals/Systems Upgrade Program	12.63.01	\$58,646,277	\$78,024,477	\$38,176,646	\$38,176,646	\$38,176,646	\$251,200,692	\$314,000,865
Stations and Facilities Program	12.34.00	\$54,993,482	\$56,319,999	\$31,826,468	\$31,826,468	\$31,826,468	\$206,792,885	\$258,491,106
5337		\$516,926,340	\$232,546,158	\$236,571,519	\$241,684,814	\$241,684,814	\$1,469,413,645	\$1,836,767,056
Bridge & Tunnel Program	12.24.05	\$102,215,335	\$41,922,735	\$85,641,776	\$85,641,776	\$85,641,776	\$401,063,398	\$501,329,248
Revenue Vehicle Program	12.12.00	\$92,288,847	\$39,200,000	\$26,782,526	\$31,895,822	\$31,895,822	\$222,063,017	\$277,578,771
Signals/Systems Upgrade Program	12.63.01	\$163,576,927	\$32,306,280	\$25,811,048	\$25,811,047	\$25,811,047	\$273,316,349	\$341,645,436
Stations and Facilities Program	12.34.00	\$158,845,231	\$119,117,143	\$98,336,169	\$98,336,169	\$98,336,169	\$572,970,881	\$716,213,601
5339		\$5,980,713	\$6,135,804	\$6,261,816	\$6,416,908	\$6,416,908	\$31,212,149	\$39,015,186
Bus Program	11.14.00	\$5,980,713	\$6,135,804	\$6,261,816	\$6,416,908	\$6,416,908	\$31,212,149	\$39,015,186
FFY23-27 FTA Formula Funding		\$796,744,918	\$432,310,126	\$440,444,525	\$450,784,632	\$450,784,632	\$2,571,068,833	\$3,213,836,041
Other Federal		\$413,485,012	\$183,620,000	\$526,564,667	\$247,585,333	\$147,500,000	\$1,518,755,012	\$1,614,485,151
RRIF Financing - PTC/ATC/Fiber	12.63.01	\$0	\$0	\$369,064,667	\$100,085,333	\$0	\$469,150,000	\$469,150,000
RRIF/TIFIA Financing Program	12.24.05	\$147,500,000	\$147,500,000	\$147,500,000	\$147,500,000	\$147,500,000	\$737,500,000	\$737,500,000
North Wilmington Station - CARS (FTA)	12.34.02	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000	\$1,300,000
Quincy Bus Facility Modernization (FTA)	11.43.02	\$5,000,000	\$0	\$0	\$0	\$0	\$5,000,000	\$6,250,000
South Salem Comm. Rail Stop Study (FTA)	12.31.02	\$372,000	\$0	\$0	\$0	\$0	\$372,000	\$465,000
Cheslea & Everett Route Planning (FTA)	11.21.01	\$780,100	\$0	\$0	\$0	\$0	\$780,100	\$780,100
Battery Electric Buses - Low-No (FTA)	11.13.01	\$116,000,000	\$0	\$0	\$0	\$0	\$116,000,000	\$136,470,588
Symphony Station Access Improv (FTA)	12.34.02	\$66,602,931	\$0	\$0	\$0	\$0	\$66,602,931	\$83,253,664
Hingham Ferry Dock Modification (FTA)	12.33.05	\$6,639,134	\$0	\$0	\$0	\$0	\$6,639,134	\$8,298,918
Newton Commuter Rail Stations (FTA)	12.34.02	\$7,000,000	\$0	\$0	\$0	\$0	\$7,000,000	\$8,750,000
South Elm Street Bridge Haverhill (FRA)	12.24.05	\$7,596,431	\$0	\$0	\$0	\$0	\$7,596,431	\$15,192,862
MBTA Suicide Trespass Prevention (FRA)	12.21.03	\$100,000	\$0	\$0	\$0	\$0	\$100,000	\$100,000
Lynnway Multimodal Corridor (RAISE)	11.23.01	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Blue Hill Ave. Corridor Project (RAISE)	11.23.01	\$15,000,000	\$0	\$0	\$0	\$0	\$15,000,000	\$39,456,000
Alewife Wayfinding Impr. (CMAQ)	12.33.09	\$233,824	\$0	\$0	\$0	\$0	\$233,824	\$292,280
MBTA Systemwide Bike Racks (CMAQ)	12.43.41	\$220,592	\$0	\$0	\$0	\$0	\$220,592	\$275,740
Columbus Ave. Bus Lane Ph. II (CMAQ)	11.23.01	\$11,840,000	\$9,400,000	\$0	\$0	\$0	\$21,240,000	\$26,550,000
Lynn Station Improvements (STP)	12.34.02	\$27,600,000	\$10,880,000	\$0	\$0	\$0	\$38,480,000	\$48,100,000
Forest Hills Station Improv (STP)	12.34.02	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jackson Sq. Station Access Impr. (CMAQ)	12.34.02	\$0	\$11,000,000	\$10,000,000	\$0	\$0	\$21,000,000	\$26,250,000
Rail Transformation - Early Action CMAQ)	12.24.03	\$0	\$4,840,000	\$0	\$0	\$0	\$4,840,000	\$6,050,000
FFY23-27 Total Federal Funding		\$1,210,229,930	\$615,930,126	\$967,009,192	\$698,369,965	\$598,284,632	\$4,089,823,845	\$4,828,321,193

Note:

FTA formula funds (5307, 5337 and 5339) are based on estimated apportionments for FFY23-27. FFY23 includes carryforward funds.

TIP programs and projects are based on the draft FY24-28 CIP and planned federal obligations as of Apr-23. Adjustments will be made to federal projects and budgets as the FY24-28 CIP is finalized.

The Activity Line Item (ALI) codes are preliminary only and generally reflect the bulk of the TIP program. Within a program there may be several different ALI codes used.

RRIF loan funding for the PTC/ATC/Fiber Resiliency project is based on the currently planned drawdown schedule and is subject to change.

RRIF/TIFIA financing program funding is an initial estimate and will be refined as projects are identified and loans are finalized with the Build America Bureau.

FFY 2023-2027 Transportation Improvement Program (TIP) Amendment - April 2023
Summary of MBTA Changes by FFY and TIP Program (Federal Funds)

Federal Funding Program	ALI	2023	2024	2025	2026	2027	FFY23-27 Total (Federal)	FFY23-27 Total (Incl. Match)
5307		(\$29,060)	(\$35,300)	(\$66,770)	(\$37,479)	(\$4,939,181)	(\$5,107,790)	(\$6,384,737)
Bridge & Tunnel Program	12.24.05	(\$15,000,000)	(\$5,400,000)	\$20,834,709	\$20,834,709	\$20,834,709	\$42,104,127	\$52,630,159
Revenue Vehicle Program	12.12.00	\$36,626,077	(\$68,815,267)	(\$30,740,084)	(\$30,710,793)	(\$35,612,495)	(\$129,252,562)	(\$161,565,702)
Signals/Systems Upgrade Program	12.63.01	\$8,646,277	\$39,426,747	(\$421,085)	(\$421,085)	(\$421,085)	\$46,809,770	\$58,512,213
Stations and Facilities Program	12.34.00	(\$30,301,414)	\$34,753,221	\$10,259,690	\$10,259,690	\$10,259,690	\$35,230,875	\$44,038,594
5337		\$29,189,319	(\$1,798,723)	(\$1,829,384)	(\$1,861,825)	(\$6,772,875)	\$16,926,511	\$21,158,139
Bridge & Tunnel Program	12.24.05	\$5,450,039	(\$42,671,042)	\$1,048,000	\$1,048,000	\$1,048,000	(\$34,077,004)	(\$42,596,256)
Revenue Vehicle Program	12.12.00	\$14,608,847	\$17,650,789	\$5,233,315	\$10,346,611	\$10,346,611	\$58,186,171	\$72,732,714
Signals/Systems Upgrade Program	12.63.01	\$61,780,330	(\$3,901,136)	(\$10,396,368)	(\$10,396,369)	(\$10,396,369)	\$26,690,087	\$33,362,609
Stations and Facilities Program	12.34.00	(\$52,649,897)	\$27,122,666	\$2,285,670	(\$2,860,066)	(\$7,771,116)	(\$33,872,743)	(\$42,340,928)
5339		(\$35,741)	(\$117,459)	(\$183,687)	(\$270,061)	(\$515,510)	(\$1,122,458)	(\$1,403,072)
Bus Program	11.14.00	(\$35,741)	(\$117,459)	(\$183,687)	(\$270,061)	(\$515,510)	(\$1,122,458)	(\$1,403,072)
FFY23-27 FTA Formula Funding		\$29,124,518	(\$1,951,482)	(\$2,079,842)	(\$2,169,365)	(\$12,227,567)	\$10,696,263	\$13,370,329
Other Federal		\$59,992,065	\$20,120,000	\$10,000,000	\$22,500,000	\$22,500,000	\$135,112,065	\$157,202,581
RRIF Financing - PTC/ATC/Fiber	12.63.01	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RRIF/TIFIA Financing Program	12.24.05	\$0	\$0	\$0	\$22,500,000	\$22,500,000	\$45,000,000	\$45,000,000
North Wilmington Station - CARS1 (FTA)	12.34.02	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Quincy Bus Facility Modernization (FTA)	11.43.02	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,000
South Salem Comm. Rail Stop Study (FTA)	12.31.02	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cheslea & Everett Route Planning (FTA)	11.21.01	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Battery Electric Buses - Low-No (FTA)	11.13.01	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Symphony Station Access Improv (FTA)	12.34.02	\$66,602,931	\$0	\$0	\$0	\$0	\$66,602,931	\$83,253,664
Hingham Ferry Dock Modification (FTA)	12.33.05	\$6,639,134	\$0	\$0	\$0	\$0	\$6,639,134	\$8,298,918
Newton Commuter Rail Stations (FTA)	12.34.02	\$7,000,000	\$0	\$0	\$0	\$0	\$7,000,000	\$8,750,000
South Elm Street Bridge Haverhill (FRA)	12.24.05	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MBTA Suicide Trespass Prevention (FRA)	12.21.03	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lynnway Multimodal Corridor (RAISE)	11.23.01	(\$20,250,000)	\$0	\$0	\$0	\$0	(\$20,250,000)	(\$27,000,000)
Blue Hill Ave. Corridor Project (RAISE)	11.23.01	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Alewife Wayfinding Impr. (CMAQ)	12.33.09	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MBTA Systemwide Bike Racks (CMAQ)	12.43.41	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Columbus Ave. Bus Lane Ph. II (CMAQ)	11.23.01	\$0	\$9,400,000	\$0	\$0	\$0	\$9,400,000	\$11,750,000
Lynn Station Improvements (STP)	12.34.02	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Forest Hills Station Improv (STP)	12.34.02	\$0	(\$5,120,000)	\$0	\$0	\$0	(\$5,120,000)	(\$6,400,000)
Jackson Sq. Station Access Impr. (CMAQ)	12.34.02	\$0	\$11,000,000	\$10,000,000	\$0	\$0	\$21,000,000	\$26,250,000
Rail Transformation - Early Action CMAQ)	12.24.03	\$0	\$4,840,000	\$0	\$0	\$0	\$4,840,000	\$6,050,000
FFY23-27 Total Federal Funding		\$89,116,583	\$18,168,518	\$7,920,158	\$20,330,635	\$10,272,433	\$145,808,328	\$170,572,911

Note:

This table compares the proposed FFY23-27 TIP Amendment to the most recent FFY23-27 TIP that was presented to the MPO in October 2022.

FTA Formula Funding - Funding is slightly lower to reflect current estimates of BIL (FFY23-26) and Post-BIL (FFY27) formula fund apportionments. For 5337 funds, FFY23 has been increased because the MBTA received a discretionary award for Symphony Station which frees up formula funds for other projects. Annual changes at the TIP Program level reflect currently anticipated project readiness and projected FFY23-27 spending, as well as some project shifts between 5307/ 5337/ 5339 funding since October 2022.

Other Federal Funding - The FFY23 changes are the result of three new discretionary awards since October 2022 that are being added to the TIP (e.g., Symphony Station, Hingham Ferry Dock and Newton Commuter Rail Stations). In addition, the Lynnway Corridor project is now expected to be delivered by MassDOT. The FFY24-25 changes are the result of adjustments in MPO funding for Columbus Ave, Forest Hills, Jackson Square and Rail Transformation. The FFY26-27 changes are the result of additional planned RRIF/TIFIA loan financing in these years.

MBTA Federal Capital Program
FFY 2023 and FFY 2024-2028 TIP - Project List and Descriptions (80% Federal Share)

Funds	TIP Program	CIP ID#	Project Name	FFY 2023	FFY 2024-2028	Total (Federal)	Project Description
FTA Formula Funds (5307, 5337, 5339)							
5307 - Bridge and Tunnel							
5307	Bridge and Tunnel	P0909	Repairs and Rehabilitation of MBTA-Owned Dams	\$0	\$13,200,000	\$13,200,000	Repairs, rehabilitation and/or decommissioning of the Spillway Dam on the Providence/Stoughton Line in Canton and the Cordaville Pond Dam on the Framingham/Worcester Line in Southborough.
5307	Bridge and Tunnel	P1107	Bridge Program Pipeline - Rehabilitation, Repair and Replacement	\$0	\$91,738,836	\$91,738,836	This program uses information provided through the bridge inspection and load rating program to design and construct prioritized bridge rehabilitation, repair, or replacement projects.
				\$0	\$104,938,836	\$104,938,836	
5307 - Revenue Vehicles							
5307	Revenue Vehicles	P0369	Green Line Type 10 Vehicle Replacement Program	\$86,646,370	\$269,725,111	\$356,371,481	Procurement of 102 new fully-accessible light rail vehicle (LRV) fleet and related infrastructure improvements to replace the existing Type 7 and Type 8 fleets and support increased system capacity.
5307	Revenue Vehicles	P0618	Procurement of 40ft Enhanced Electric Hybrid Buses	\$0	\$145,893,636	\$145,893,636	Procurement of 460 40ft Enhanced Electric Hybrid (EEH) buses to replace 310 40ft diesel buses purchased in 2006-2008 and support more reliable, efficient, and sustainable operations. Includes vehicle testing, warranty, and inspection.
5307	Revenue Vehicles	P0649	Option Order Procurement of New Flyer Hybrid 40ft Buses	\$0	\$6,642,894	\$6,642,894	Procurement of 194 40ft buses with hybrid propulsion to replace an aging fleet and improve fuel economy.
5307	Revenue Vehicles	P0652	Procurement of 100 Bi-Level Commuter Rail Coaches	\$7,815,237	\$27,261,028	\$35,076,265	Procurement of 100 Bi-Level Commuter Rail coaches to replace aging single-level coaches, expand capacity from 120 to 180 passengers per coach, reduce number of coaches required, and mitigate operational bottlenecks.
5307	Revenue Vehicles	P0911	Hybrid and CNG Bus Overhaul	\$59,098,327	\$0	\$59,098,327	Midlife overhaul of major systems and components of 156 40ft hybrid buses to ensure reliable and safe operations that meet FTA requirements. Also includes condition assessment activities for 175 40ft CNG buses, and 45 60ft hybrid buses.
5307	Revenue Vehicles	P1016	Mattapan Trolley Select System Upgrade	\$2,771,505	\$2,149,646	\$4,921,152	Overhaul of the 75+-year-old PCC cars operating on the Mattapan Line to improve fleet reliability. Includes work on the propulsion system, trucks, auxiliary electrical power system, wiring, lighting, doors, car bodies, and paint.
5307	Revenue Vehicles	P1151	Blue Line Vehicle Mid-Life Overhaul	\$2,400,000	\$0	\$2,400,000	Planning of the midlife overhaul of 94 Blue Line heavy-rail vehicles built by Siemens. The project will address systems at or nearing the end of their intended service lives, obsolete components, and functional improvements.
5307	Revenue Vehicles	P1154	CNG Bus Overhaul (New Flyer XN40 - SR 1982)	\$666,667	\$0	\$666,667	Planning for the midlife overhaul of 175 40-foot New Flyer CNG buses delivered 2016 to 2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.
5307	Revenue Vehicles	P1155	Hybrid Bus Overhaul (New Flyer XDE40 - SR 2011)	\$800,000	\$0	\$800,000	Planning for the midlife overhaul of 44 60-foot New Flyer hybrid buses delivered 2016 to 2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.
5307	Revenue Vehicles	P1162	Reliability Centered Maintenance - Blue, Orange and Red Line	\$0	\$28,320,000	\$28,320,000	Improvements to trucks, brakes, motors, current collectors, propulsion, and auxiliary fuses on the Blue Line and improvements to propulsion, brakes, HVAC, and doors on the Red and Orange Lines.
				\$160,198,106	\$479,992,316	\$640,190,421	
5307 - Signals and Systems							
5307	Signals and Systems	P0285	Signal Program - Red/Orange Line	\$58,646,277	\$54,116,151	\$112,762,428	Replacement and upgrade of signal equipment on the Red and Orange Lines. Includes renewal of track circuit modules using latest digital audio frequency technology and replacement of wayside equipment on the Orange Line south of Haymarket.
5307	Signals and Systems	P0857	Mattapan HSL Transformation	\$0	\$62,293,157	\$62,293,157	State of good repair and accessibility improvements, power upgrades, and other infrastructure investments on the Mattapan Line.
5307	Signals and Systems	P0912	Systemwide Tunnel Flood Mitigation Program	\$0	\$37,200,000	\$37,200,000	Planning, training, and infrastructure improvements to make the tunnel network more resilient to flooding exposures due to storm surge, precipitation, and sea level rise.
5307	Signals and Systems	P0940	Rail Transformation - Early Action Items	\$0	\$8,000,000	\$8,000,000	Various early-action efforts to support future Rail Transformation. Includes addition of double tracks, interlockings, platforms, and turnbacks on the Newburyport/Rockport, Fitchburg, Haverhill, and Lowell Lines at key stations.
5307	Signals and Systems	P1139	Systemwide Asset Management Program Phase 4	\$0	\$33,321,753	\$33,321,753	Implementation of the Asset Management Program in accordance with FTA req. Includes asset inventory and condition assessments; updates to the National Transit Database (NTD) and the Transit Asset Management Plan (TAMP); and EAMS implementation.
5307	Signals and Systems	P1157	Systemwide Non-Revenue Vehicles Program	\$0	\$9,600,000	\$9,600,000	Replacement of non-revenue vehicles in the authority's fleet. Non-revenue vehicles include first response vehicles, service cars and trucks, and many other types of vehicles that support operations and maintenance of the system.
5307	Signals and Systems	P1159	Everett Test Equipment Upgrades	\$0	\$2,400,000	\$2,400,000	Addition of two AC traction motor test cells, two tread brake unit test benches, one air compressor test unit, and a thermal chamber at the Everett Main Repair Facility.
5307	Signals and Systems	P1210	PILC-EPR Medium Voltage Cable Replacement Program	\$0	\$11,800,000	\$11,800,000	Replacement of medium voltage AC cables that are beyond their useful life between traction power substations to maintain a state of good repair and reduce lead exposure risk to employees.
5307	Signals and Systems	P1212	15kV Feeder and Duct Bank Replacement	\$0	\$12,000,000	\$12,000,000	Design and systemwide replacement of cables with Paper Insulated Lead Covered (PILC) feeders with new cables containing Ethylene Propylene Rubber (EPR) feeders to increase employee safety and power system resiliency.
				\$58,646,277	\$230,731,061	\$289,377,338	
5307 - Stations and Facilities							
5307	Stations and Facilities	P0066e	Harvard/Central Elevator	\$400,000	\$0	\$400,000	Replacement of existing station elevator No. 821 at Harvard Square and No. 861 at Central Square on the Red Line, per ADA/BCIL requirements. Also includes replacement of central escalator No. 360.
5307	Stations and Facilities	P0075	Elevator Program Multiple Location Design	\$20,951,644	\$22,026,625	\$42,978,269	Design and some construction work for the replacement of elevators and/or addition of new, redundant elevators and related wayfinding amenities at transit stations.
5307	Stations and Facilities	P0165	Harvard Square Busway Repairs	\$993,027	\$0	\$993,027	Rehabilitation of roadway, lighting, signage, drainage, and catenary systems in the Harvard busway and accessibility upgrades to ensure near level boarding for the 71 and 73 buses.
5307	Stations and Facilities	P0671a	Quincy Bus Facility Modernization	\$32,522,178	\$62,527,791	\$95,049,968	Relocation and replacement of the Quincy Bus Maintenance Facility. The new, modernized facility will expand capacity and includes the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet and bus electrification.
5307	Stations and Facilities	P0671b	Arborway Bus Facility - Design Funding	\$0	\$27,720,000	\$27,720,000	Design funding to support the construction of a new Arborway bus facility to accommodate battery electric bus (BEB) infrastructure and bus electrification.
5307	Stations and Facilities	P0671c	North Cambridge Bus Facility Retrofit	\$0	\$28,800,000	\$28,800,000	Renovation of North Cambridge facility to support conversion to battery electric bus (BEB) fleets and bus electrification.
5307	Stations and Facilities	P1113	Bus Priority Project Construction	\$0	\$9,120,000	\$9,120,000	Funding to support construction of bus priority infrastructure. This may include side- or center-running bus lanes, transit signal priority, pavement markings, and stop upgrades.
5307	Stations and Facilities	P1216	Everett Building 2 Floor Repairs	\$0	\$15,031,457	\$15,031,457	Repairs to the heavily deteriorated structure on the first floor of Everett's Building 2 facility that supports heavy rail service.
5307	Stations and Facilities	P1225	Systemwide Escalator and Elevator Replacement Program	\$0	\$12,000,000	\$12,000,000	Replacement of escalators and elevators systemwide that are in poor condition, have limited parts available, and require replacement as identified in the MBTA's 20-Year Vertical Transportation Capital Plan.
5307	Stations and Facilities	P1233	Green Line D Branch Enhanced Accessibility Improvements	\$0	\$6,399,998	\$6,399,998	Replacement of legacy uninterruptible power source equipment with latest generation devices and cables across all rapid transit communication rooms to allow core devices to remain online and operational during momentary power outages.
				\$54,993,482	\$183,625,871	\$238,619,353	
5337 - Bridge and Tunnel							
5337	Bridge and Tunnel	P0006	Gloucester Drawbridge Replacement	\$12,402,982	\$0	\$12,402,982	Replacement of Gloucester Drawbridge on the Rockport Line. The new bridge will consist of a moveable bascule span with two independent barrels, two spans of precast concrete box beams, a new steel superstructure, and a new micro-pile abutment.
5337	Bridge and Tunnel	P0008	Emergency Bridge Design / Inspection & Rating	\$20,848,534	\$0	\$20,848,534	Funding to support as-needed emergency design, inspection, and rating of bridges.
5337	Bridge and Tunnel	P0009	Bridges - Design	\$8,493,454	\$3,902,654	\$12,396,108	Design funding to support the repair, rehabilitation, and replacement of bridges across the system.

5337	Bridge and Tunnel	P0018	North Station Draw 1 Bridge Replacement	\$20,502,981	\$144,649,614	\$165,152,595	Replacement of North Station Draw 1 bridge structure and control tower. Includes expansion of bridge capacity from 4 to 6 tracks, expansion of station platform capacity from 10 to 12 tracks, and a pedestrian path across the Charles River.
5337	Bridge and Tunnel	P0037	Emergency Bridge Repair	\$5,014,180	\$0	\$5,014,180	Funding to support emergency bridge repairs on an on-call basis.
5337	Bridge and Tunnel	P0182	Tunnel Rehab	\$9,004,269	\$0	\$9,004,269	Construction and professional services relating to tunnel repair and inspection.
5337	Bridge and Tunnel	P0495	Bridge Bundling Contract	\$0	\$11,200,000	\$11,200,000	Replacement of six commuter rail bridges at Intervale Rd. in Weston; Bacon St. in Wellesley; High Line Bridge in Somerville; Lynn Fells Parkway in Melrose; Parker St. in Lawrence; and Commercial St. in Lynn.
5337	Bridge and Tunnel	P0551	Longfellow Approach	\$8,528,092	\$159,471,909	\$168,000,000	Rehabilitation of Longfellow Approach viaduct, Span 1 of the Longfellow Bridge, and station platforms at Charles/MGH Station. Includes new track, power, communication and signal systems, and additional emergency egress and redundant elevators.
5337	Bridge and Tunnel	P0627	Systemwide Bridge Inspection and Rating	\$6,377,260	\$22,400,000	\$28,777,260	Program to support in-depth inspection and load rating of MBTA-owned bridges at regular intervals. Load ratings are used to establish a systemwide priority list of bridge repairs, rehabilitation, and replacement.
5337	Bridge and Tunnel	P0892	Saugus Drawbridge Replacement	\$2,445,159	\$5,554,842	\$8,000,000	Design of Saugus Drawbridge replacement on the Newburyport/Rockport Line. The new bridge would include a widened approach embankment, a new control house, signal upgrades, and relocation of submerged utilities.
5337	Bridge and Tunnel	P0907	East Street Bridge Replacement (Dedham)	\$4,192,505	\$10,207,495	\$14,400,000	Replacement of East Street bridge carrying the Franklin Line in Dedham. The new bridge will feature improved vertical and horizontal clearance, improved roadway features, and improved pedestrian and vehicle access to East Street.
5337	Bridge and Tunnel	P1107	Bridge Program Pipeline - Rehabilitation, Repair and Replacement	\$4,400,000	\$11,600,000	\$16,000,000	This program uses information provided through the bridge inspection and load rating program to design and construct prioritized bridge rehabilitation, repair, or replacement projects.
5337	Bridge and Tunnel	P1115	South Elm Street Bridge Replacement	\$560	\$4,095,326	\$4,095,886	Replacement of South Elm Street bridge on the Haverhill Line serving Commuter Rail, Downeaster, and Pan Am freight trains.
5337	Bridge and Tunnel	P1116	Systemwide Culvert Inspection and Load Rating	\$0	\$2,800,000	\$2,800,000	Inventory, inspection, and load rating of the MBTA's approx. 1,300 culverts supporting in-service structures systemwide. The scope of work includes an initial inspection to establish baseline condition, followed by inspection every five years.
5337	Bridge and Tunnel	R0074	Tunnel Inspection Systemwide	\$5,360	\$8,608,000	\$8,613,360	Ongoing inspection and rating of Red Line, Orange Line, Green Line, and Blue Line tunnels.
				\$102,215,335	\$384,489,839	\$486,705,174	

5337 - Revenue Vehicles

5337	Revenue Vehicles	P0239	F40 Commuter Rail Locomotive Overhaul	\$17,186,527	\$16,484,144	\$33,670,671	Overhaul of 37 F40 Commuter Rail locomotives to improve reliability and reduce risk of unplanned maintenance.
5337	Revenue Vehicles	P0370	Green Line Train Protection	\$64,981,631	\$21,914,013	\$86,895,645	Procurement and installation of on-board and wayside equipment for a train protection and information system on the Green Line to mitigate red signal violations, train-to-train collisions, derailments, and intrusions into work zones.
5337	Revenue Vehicles	P0918	Future Rolling Stock Fleet	\$800,000	\$39,200,000	\$40,000,000	Planning funds to support future procurement of 25 electrified or decarbonized Commuter Rail rolling stock to replace the oldest vehicles in the fleet and support rail electrification.
5337	Revenue Vehicles	P0927	Rolling Stock - Locomotive and Coach State of Good Repair and Resiliency	\$8,784,689	\$10,471,834	\$19,256,523	Upgrades to improve system reliability, correct deficiencies, standardize procedures, and increase equipment availability for Commuter Rail rolling stock. Includes vehicle procurement, testing support, service life enhancement, and overhauls.
5337	Revenue Vehicles	P1173	HSP46 Locomotive Overhaul	\$536,000	\$73,600,000	\$74,136,000	Midlife overhaul of 40 HSP46 Locomotives to improve reliability and reduce risk of unplanned maintenance.
				\$92,288,847	\$161,669,992	\$253,958,839	

5337 - Signals and Systems

5337	Signals and Systems	P0146	SCADA Upgrades	\$0	\$1,600,000	\$1,600,000	Upgrades to the Power Supervisory Control and Data Acquisition (SCADA) communication network from leased lines to the Security Wide Area Network (SWAN) to provide high-speed ethernet connection at traction power substations and unit substations.
5337	Signals and Systems	P0261	Worcester Line Track and Station Accessibility Improvements	\$9,654,473	\$16,231,267	\$25,885,740	New third track and realignment of existing tracks on the Framingham and Worcester Commuter Rail lines between Weston and Framingham. Includes upgrades to Wellesley Farms, Wellesley Hills, Wellesley Square, and West Natick Stations.
5337	Signals and Systems	P0283	Green Line Central Tunnel Signal - 25 Cycle	\$3,731,460	\$0	\$3,731,460	Replacement of 25Hz track circuits with 100Hz track circuits in the Green Line central tunnel. Includes replacement of track circuit cable, trough, messenger, cases, relays, rectifiers, and signal power equipment.
5337	Signals and Systems	P0301	Systemwide Radio	\$111,800,719	\$0	\$111,800,719	Upgrade of the MBTA's existing two-way radio system used by MBTA Transit Police and operations personnel. This project includes mobile radios for heavy rail, light rail, and bus vehicles.
5337	Signals and Systems	P0591	Green Line Central Tunnel Track and Signal Replacement	\$16,598,773	\$79,401,227	\$96,000,000	Rehabilitation and upgrades to signal and track infrastructure within the Green Line Central Tunnel. Includes central instrumentation houses and signal, track, and power systems at Copley, Park Street, and Government Center.
5337	Signals and Systems	P0705	Power Systems Resiliency Program	\$7,384	\$5,144,453	\$5,151,837	Replacement of damaged power cable duct banks that energize areas of the Red, Orange, Blue, and Green Lines. Includes excavation, demolition, conduit replacement, manhole replacement, surface restoration, and power-cable installation.
5337	Signals and Systems	P0904	Systemwide Asset Management Program Phase 3	\$5,132,759	\$2,467,241	\$7,600,000	Implementation of the Asset Management Program in accordance with FTA requirements. Includes professional services, audit, inventory, condition assessments, updates to the National Transit Database (NTD), and Transit Asset Management Plan (TAMP).
5337	Signals and Systems	P1104	Traction Power Substation Upgrades	\$0	\$5,760,000	\$5,760,000	Complete replacement of electrical systems and structural, mechanical, and plumbing improvements at nine aging traction power substations (TPSS). This scope also includes a TPSS Design Guide to standardize future improvements.
5337	Signals and Systems	P1114	South Boston to Forest Hills Duct Bank Replacement	\$0	\$12,946,281	\$12,946,281	Replacement of duct banks and cables which carry AC power from the South Boston power complex to Forest Hills.
5337	Signals and Systems	P1132	Ashmont Branch Track Replacement	\$4,000,000	\$0	\$4,000,000	Design and construction for partial reconstruction of track and track support systems on the Ashmont Branch of the Red Line. This is part of a series of Red Line track replacement projects.
5337	Signals and Systems	P1133	Braintree Line Track Replacement	\$1,200,000	\$0	\$1,200,000	Design and construction for partial reconstruction of track and track support systems on the Braintree Branch of the Red Line. This is part of a series of Red Line track replacement projects.
5337	Signals and Systems	P1139	Systemwide Asset Management Program Phase 4	\$9,600,000	\$0	\$9,600,000	Implementation of the Asset Management Program in accordance with FTA req. Includes asset inventory and condition assessments; updates to the National Transit Database (NTD) and the Transit Asset Management Plan (TAMP); and EAMS implementation.
5337	Signals and Systems	P1149	Unit Substation Replacement Project	\$1,851,360	\$0	\$1,851,360	Development of a unit substation (USS) design guide and replacement of existing power and electrical equipment at USS locations, including AC feeder disconnect switches.
5337	Signals and Systems	P1213	SCADA Equipment Update	\$0	\$12,000,000	\$12,000,000	Equipment and fiber optic network upgrades to the Supervisory Control and Data Acquisition (SCADA) system that controls critical power infrastructure. Upgrades incl. a new master terminal, programmable logic controllers, and remote terminal units.
				\$163,576,927	\$135,550,469	\$299,127,396	

5337 - Stations and Facilities

5337	Stations and Facilities	P0003	Green Line B-Branch Consolidation	\$295,716	\$0	\$295,716	Consolidation of four Green Line B-Branch stops into two new, fully accessible stations: Babcock Street and Amory Street. Features include accessible boarding and exits, security and lighting upgrades, and longer platforms to accommodate Type 10s.
5337	Stations and Facilities	P0066	Elevator Program	\$0	\$1,585,531	\$1,585,531	Design and construction funding for elevator improvements on the rapid transit system. Individual elevator projects are separated into unique projects once construction stage is reached.
5337	Stations and Facilities	P0074	Downtown Crossing Vertical Transportation Improvements Phase 2	\$0	\$62,208,880	\$62,208,880	Design and construction of 3 new elevators to provide vertical transfers from the Red Line northbound to the Orange Line southbound platform, and from the Orange Line northbound to the Red Line southbound platform at Downtown Crossing.
5337	Stations and Facilities	P0076	Oak Grove Station Vertical Transportation Improvements	\$800,000	\$800,000	\$1,600,000	Accessibility upgrades at Oak Grove station, including three elevators, replacement of one existing elevator, sidewalk repairs, and wayfinding, and station-brightening improvements.
5337	Stations and Facilities	P0087	Braintree and Quincy Adams Garage Rehabilitation	\$3,763,904	\$5,984,095	\$9,748,000	Full rehabilitation of the Red Line's Braintree Station and Quincy Adams Station parking garages to extend the operable service life of each facility by forty years, including new elevators at Braintree and upgrades to life and fire safety systems.
5337	Stations and Facilities	P0129	Newton Highlands Green Line Station Accessibility Project	\$21,713,141	\$16,588,853	\$38,301,993	Accessibility improvements at Newton Highlands on the Green Line D Branch, including three ramps covered with canopies, raised platforms, one at-grade pedestrian crossing, site lighting, new platform shelters, and covered bike racks.

5337	Stations and Facilities	P0163	Forest Hills Improvement Project	\$5,726,410	\$20,363,354	\$26,089,764	Accessibility and state of good repair improvements at Forest Hills Station. Includes elevator replacement, new elevator/stair tower to connect upper and lower busway, accessibility upgrades, station brightening, wayfinding, and platform repairs.
5337	Stations and Facilities	P0169	Wollaston Station / Quincy Center Garage Demolition	\$440,376	\$2,095,100	\$2,535,476	Complete modernization of Wollaston Station, demolition of the top 3 levels of the Quincy Center parking garage, replacement of one elevator at Quincy Center, and construction of an accessible walkway to Quincy Center.
5337	Stations and Facilities	P0174	Natick Center Station Accessibility Project	\$0	\$10,739,265	\$10,739,265	Reconstruction and modernization of Natick Center Station, including new fully accessible high-level side platforms, elevators, ramps, stairs, lighting, wayfinding, streetscape, upgraded tracks, and connection to the Cochituate Rail Trail.
5337	Stations and Facilities	P0179	Winchester Center Station	\$0	\$5,865,827	\$5,865,827	Reconstruction and modernization of Winchester Center Station including new fully accessible high-level side platforms, elevators, ramps, stairs, lighting, signage and wayfinding, streetscape improvements, and upgraded track infrastructure.
5337	Stations and Facilities	P0395	Worcester Union Station Accessibility and Infrastructure Improvements	\$0	\$2,841,410	\$2,841,410	Includes high-level center platform with elevators, ramps, and stairs; replacement and realignment of station tracks; and construction of a new rail crossover to improve accessibility, operations, and service capacity at Worcester Union Station.
5337	Stations and Facilities	P0631b	Blue Line Communications Room SGR Improvements	\$0	\$16,374,166	\$16,374,166	Rehabilitation of communications rooms along the Blue Line to bring them into a state of good repair and support the implementation of Fare Transformation.
5337	Stations and Facilities	P0679	Codman Yard Expansion and Improvements	\$0	\$48,118,356	\$48,118,356	Improvements to Codman Yard, including in-kind replacement of existing infrastructure and the expansion of storage capacity to support the new Red Line fleet.
5337	Stations and Facilities	P0856	Ruggles Station Improvements Phase 2	\$99,625,355	\$0	\$99,625,355	Continuation of Ruggles Station Improvements to address accessibility, code-compliance, and state-of-good repair issues. Includes repair, reconstruction, and improvements to platforms, entrances, stairs, elevators, ramps, restrooms, and wayfinding.
5337	Stations and Facilities	P0923	E Branch Accessibility & Capacity Improvements	\$0	\$68,752,659	\$68,752,659	Improvements to surface track and stations on the E branch of the Green Line, extending from the Northeastern Station portal to Heath Street Station.
5337	Stations and Facilities	P0924	B Branch Accessibility & Capacity Improvements	\$0	\$122,712,388	\$122,712,388	Track realignments, accessibility improvements, potential consolidation, and station and traction power upgrades along the Green Line B branch between Blandford St. and Warren St. Stations.
5337	Stations and Facilities	P1010	Riverside Vehicle Maintenance Facility Modifications & Upgrades	\$0	\$39,480,004	\$39,480,004	Upgrades to existing hoists, pits, and mezzanines at the Riverside Vehicle Maintenance Facility to accommodate the future Type 10 fleet.
5337	Stations and Facilities	P1011	Green Line Extension Vehicle Maintenance Facility Modifications & Upgrades	\$0	\$9,943,729	\$9,943,729	Design and installation of a new hoist at the Green Line Extension (GLX) Vehicle Maintenance Facility to accommodate the future Type 10 fleet.
5337	Stations and Facilities	P1025	Lynn Parking Garage Decommissioning	\$0	\$18,252,240	\$18,252,240	Decommissioning of the closed Lynn Station parking garage.
5337	Stations and Facilities	P1101	Lake Street Complex Demolition and Reconfiguration	\$0	\$3,680,695	\$3,680,695	Demolition of the Lake Street facility and reconfiguration into an expanded yard. The site will be designed to maximize train storage, streamline yard operations, and eliminate a sharp curve in anticipation of the larger Type 10 light rail fleet.
5337	Stations and Facilities	P1103	Reservoir Yard and Non-Revenue Track Optimization and Reconfiguration	\$0	\$24,424,868	\$24,424,868	Reconfiguration of various track elements at Reservoir, including the lower west yard, East/West Wye, Chestnut Hill Avenue connection, B-branch connection, and non-revenue track around Cleveland Circle.
5337	Stations and Facilities	P1144	Commuter Rail Facilities State of Good Repair	\$22,800,000	\$0	\$22,800,000	Funding to support Commuter Rail facilities improvements, including design support contracts, roof and roof equipment replacement, WiFi and IT infrastructure, fluid systems, and maintenance of way facilities.
5337	Stations and Facilities	P1171	Billerica MOW Repair and Storage Facility	\$0	\$24,000,000	\$24,000,000	Funds to design and construct a new, fully accessible Commuter Rail maintenance facility, storage yards, and tracks in Billerica, with eight service bays, wash bay, overhead bridge crane, office space, and employee amenities.
5337	Stations and Facilities	P1222	Codman Yard Storage and Office Facility	\$0	\$7,650,400	\$7,650,400	Establishment of a dedicated storage and office facility at the Codman Yard to store, repair, and maintain critical equipment.
5337	Stations and Facilities	R0071	Lynn Station and Parking Garage Improvements Phase II	\$3,680,328	\$0	\$3,680,328	Design funding for new elevators, stairs, platform, canopy, and architectural improvements to the station and the intent to acquire and demolish structures under station's viaduct. Existing parking garage will also be replaced by surface parking.
				\$158,845,231	\$512,461,819	\$671,307,050	

5339 - Bus and Bus Facility

5339	Bus Program	P0911	Hybrid and CNG Bus Overhaul	\$5,980,713	\$31,648,344	\$37,629,057	Midlife overhaul of major systems and components of 156 40ft hybrid buses to ensure reliable and safe operations that meet FTA requirements. Also includes condition assessment activities for 175 40ft CNG buses, and 45 60ft hybrid buses.
				\$5,980,713	\$31,648,344	\$37,629,057	

Note: Project descriptions and dollar amounts are preliminary only and are provided for informational purposes. In many cases, the scopes of work and project budgets will become more fully developed as the design process proceeds and is completed. The MBTA may also opt to fund a project from a different FTA funding source based on the timing of projects and the availability of FTA funds.

RRIF/TIFIA Financing Program

Projects Potentially Funded by Federal RRIF/TIFIA Loans

RRIF/TIFIA Financing	P0671a	Quincy Bus Facility Modernization	RRIF/TIFIA loan amount/ timing to be determined	Relocation and replacement of the Quincy Bus Maintenance Facility. The new, modernized facility will expand capacity and includes the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet and bus electrification.
RRIF/TIFIA Financing	P0952	Future Regional Rail Layover Planning	RRIF/TIFIA loan amount/ timing to be determined	Real estate procurement and preliminary design for a Commuter Rail layover facility at Widett Circle in South Boston.
RRIF/TIFIA Financing	P0018	North Station Draw 1 Bridge Replacement	RRIF/TIFIA loan amount/ timing to be determined	Replacement of North Station Draw 1 bridge structure and control tower. Includes expansion of bridge capacity from 4 to 6 tracks, expansion of station platform capacity from 10 to 12 tracks, and a pedestrian path across the Charles River.
RRIF/TIFIA Financing	P0170	Newton Commuter Rail Stations Design	RRIF/TIFIA loan amount/ timing to be determined	Design of double-side, high-level, fully accessible platforms at Auburndale, West Newton, and Newtonville stations. Additional improvements include bike shelters, pick-up/drop-off locations, accessible parking, and connection to The Ride.
RRIF/TIFIA Financing	P0178	South Attleboro Station Improvements	RRIF/TIFIA loan amount/ timing to be determined	Design for the construction of a new South Attleboro station, to include 800-ft. high-level platforms, three elevators, platform access ramps, a bus bay, egress to Newport Ave., additional parking, improved vehicular circulation, updated lighting.
RRIF/TIFIA Financing	P0863	South-Side Commuter Rail Maintenance Facility	RRIF/TIFIA loan amount/ timing to be determined	Assessment and design for a new Commuter Rail maintenance and layover facility at Readville. Includes design for future construction of multiple maintenance bays within Yard 1 and Upper Yard 2.

Note: The MBTA is exploring the use of federal loans through the Build America Bureau to finance certain capital projects at a lower interest rate than traditional tax-exempt bonds. This includes loans under the Railroad Rehabilitation & Improvement Financing (RRIF) and Transportation Infrastructure Finance and Innovation Act (TIFIA) programs. The projects listed above are being considered for this program, subject to the approval of funding through the CIP process. Additional project and funding information will be provided through a future TIP/Amendment if federal grant funds or loans are utilized.