

Modernization / MBTA / Green Line Transformation

Program purpose and need statement:

This program will improve quality of service (enhanced capacity and accessibility), through fleet modernization, infrastructure and facilities upgrades utilizing state-of-the-art technology

Status of asset management system:

MBTA Transit Asset Management Plan and initial Asset Inventory and Condition data submitted in October 2018, consistent with FTA requirements

Program performance:

Tracker target

Not established in Tracker

PfP tool forecast

Not forecasted in PfP tool

FY2019-2023 size:

N/A

FY2020-2024 size request: \$915.0 million over five years

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
FTA	\$126.2	\$208.3	\$186.3	\$148.9	\$118.9	\$582.3
MBTA Bonds	\$13.3	\$18.7	\$26.2	\$11.0	\$0.5	\$70.0
State	\$0.9	\$0.9	\$0.8	\$0.8	\$0.0	\$3.4
MBTA Pay-Go	\$4.1	\$4.9	\$4.8	\$4.1	\$4.6	\$22.5
Other	\$0.9	\$0.9	\$0.8	\$0.8	\$30.5	\$33.9
Total	\$144.5	\$232.9	\$218.0	\$164.8	\$154.5	\$914.6

Justification for FY2020-2024 program size:

- New program for investments in critical projects that offer holistic improvements to the Green Line or that are required for the delivery of the Type 10 vehicles.
- Projects aim to enhance regional mobility, improve operational efficiency and safety with more modern technology or that improve customer experience by reducing delays, wait time, speed restrictions and headway spacing.
- Major projects include the procurement of GL Type 10 vehicles, 100% low floor light rail vehicle to allow level boarding and increased capacity.

Staff recommends CPC accept program size as requested

Totals may not add due to rounding



Modernization / MBTA / Process improvements and innovation

Program purpose and need statement: This program includes investments in innovations that enhance productivity or quality of MBTA services and capital programs.

Status of asset management system: Not applicable

Program performance:

Tracker target	Not established in Tracker	PfP tool forecast	Not forecasted in PfP tool
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FY2019-2023 size: \$25.0 million over five years

FY2020-2024 size request: \$13.0 million over five years

Justification for FY2020-2024 program size:

- Updated program size reflects revised program needs
- Program includes projects that introduce technology or other tools to improve or modernize MBTA business processes
- Major projects include implementing a Project Management Information System (PMIS) to more effectively manage the capital program and Lean strategy improvements at facilities and within the capital program.

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
MBTA Bond	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
MBTA Pay-Go	\$10.1	\$2.2	\$0.9	\$0.02	\$0.0	\$13.2
Total	\$10.1	\$2.2	\$0.9	\$0.02	\$0.0	\$13.2

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / MBTA / Red Line / Orange Line improvements

Program purpose and need statement:

The Red Line and Orange Line Improvements program includes the set of vehicle and infrastructure investments needed to fully modernize the fleet and achieve the service goal of three minute headways on the Red Line and three and a half minute headways on the Orange Line.

Status of asset management system:

MBTA Transit Asset Management Plan and initial Asset Inventory and Condition data submitted in October 2018, consistent with FTA requirements

Program performance:

Tracker target

Not established in Tracker

PfP tool forecast

Not forecasted in PfP tool

FY2019-2023 size:

\$1,565.7 million over five years

FY2020-2024 size request:

\$1,535.0 million over five years

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
FTA	\$26.1	\$77.9	\$99.7	\$93.2	\$0.0	\$296.9
MBTA Bond	\$45.7	\$121.1	\$75.4	\$170.5	\$35.0	\$447.7
MBTA Pay-Go	\$1.5	\$0.0	\$0.0	\$0.0	\$0.0	\$1.5
State	\$159.7	\$200.9	\$179.7	\$116.9	\$131.4	\$788.7
Total	\$233.0	\$400.0	\$354.8	\$380.6	\$166.4	\$1,534.9

Justification for FY2020-2024 program size:

- Updated program size reflects current program cash flow forecast.
- The Red Line/Orange Line vehicle procurements, signals work, and infrastructure investments are a complex and high profile project with interdependencies across asset classes.
- Includes Red Line/Orange Line vehicle procurements (404 new vehicles), Red and Orange Line signal system modernization and Cabot and Wellington Yard rebuilds.

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / MBTA / Risk management and mitigation

Program purpose and need statement: This program implements risk management initiatives as well as proactive efforts to improve workplace safety and system security

Status of asset management system: MBTA Transit Asset Management Plan and initial Asset Inventory and Condition data submitted in October 2018, consistent with FTA requirements

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$178.0 million over five years

FY2020-2024 size request: \$63.0 million over five years

Justification for FY2020-2024 program size:

- Updated program size reflects reallocation to Green Line Transformation
- Program focuses on a proactive approach to safety, security, and risk management.
- Major projects include OSHA implementation, upgrade access control and security cameras systemwide and climate change resiliency vulnerability assessments including implementation of recommendation at highest-risk locations system-wide.

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
FTA	\$5.7	\$1.7	\$0.0	\$0.0	\$0.0	\$7.4
MBTA Bond	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
MBTA Pay-Go	\$9.3	\$8.6	\$7.5	\$7.4	\$6.0	\$38.7
State	\$3.6	\$3.4	\$3.3	\$3.9	\$3.0	\$17.2
Total	\$18.6	\$13.7	\$10.8	\$11.2	\$9.0	\$63.3

Staff recommends CPC accept program size as requested

Totals may not add due to rounding



Modernization / Rail / Facility modernization

Program purpose and need statement:

This program repairs or replaces rail facilities, specifically rail yards and stations, to upgrade them to current industry standards or maintain the facility's utility. Prioritization of projects in this program will reflect economic opportunities for the line served, condition reports, type of risk/usage, and any contractual or regulatory requirements for action and consistency with the Statewide Rail Plan. This program is necessary to maintain a safe, reliable, cost effective, and modern rail system.

Status of asset management system:

Draft initial Rail Asset Management Plan under review

Program performance:

Tracker target

Not established in Tracker

PfP tool forecast

Not forecasted in PfP tool

FY2019-2023 size: \$13.25 million over five years

FY2020-2024 size request: \$8.2 million over five years

Justification for FY2020-2024 program size:

- FY 2020-2024 program sized to continue efforts to modernize rail facilities to address regulatory and contractual requirements
- Springfield Union Station and Northampton and Greenfield Stations on the Knowledge Corridor were completed in FY 2019

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	\$0.25
REP	\$0					\$0.0
Total	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	\$0.25

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Rail / Industrial Rail Access Program

Program purpose and need statement: This program makes investments in private sector rail lines to leverage private investment that will increase freight rail usage or will modernize an active line to increase the utility to customers.

Status of asset management system: Draft initial Rail Asset Management Plan under review.

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$15.0 million over five years

FY2020-2024 size request: \$15.0 million over five years

Justification for FY2020-2024 program size:

- FY2020-2024 maintains existing program size

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$15.0
Total	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$15.0

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Rail / Track and right-of-way modernization

Program purpose and need statement:

This program repairs or replaces assets within the rail right of way (typically ties, rail, ballast, switches, etc.) to upgrade their capacity to reflect current industry standards (ex: weight capacity to 286,000 lbs) for the line and maintain the line's utility. Prioritization of projects in this program will reflect economic opportunities for the line, most recent inspections, type of usage (ex: hazardous cargo), any contractual or regulatory requirements for action, and consistency with the Statewide Rail Plan. This program is necessary to maintain a safe, reliable, cost effective, and modern rail system.

Status of asset management system:

Draft initial Rail Asset Management Plan under review.

Program performance:

Tracker target

Not established in Tracker

PfP tool forecast

Not forecasted in PfP tool

FY2019-2023 size: \$31.1 million over five years

FY2020-2024 size request: \$61.1 million over five years

Justification for FY2020-2024 program size:

- FY 2020-2024 program sized to continue effort to modernize rail track and ROW
- FY2020-2024 program includes new funding from FRA under the Better Utilizing Investment to Leverage Development program along with the state match and private funding from the railroad
- May need an increase to address priorities outlined in the Statewide Rail Plan if certain lines need to accommodate 286,000 lb. capacity

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$7.5	\$6.4	\$3.0	\$8.0	\$2.9	\$27.8
FRA	\$3.9	\$7.2	\$0.0	\$0.0	\$0.0	\$11.1
Other	\$3.2	\$6.4				\$9.6
Total	\$14.6	\$20.0	\$3.0	\$8.0	\$2.9	\$48.5

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Registry / ATLAS

Program purpose and need statement: This program improves RMV service delivery options by replacing the ALARS system. This program is necessary to increase business process efficiency through reduced wait times, increase the number of transactions done via alternative customer service channels, and increase the capacity of third parties dependent on RMV data.

Status of asset management system: Not applicable

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$61.5 million over five years

FY2020-2024 size request: \$35.1 million over five years

Justification for FY2020-2024 program size:

- Program size reflects status of project and expected completion in 2021 and all costs associated with FAST Enterprises contract
- Includes Crash System implementation and International Registrations as part of ATLAS in FY2019-2024
- Separate funding for ATLAS implementation provided by MassIT
- Total program size for ATLAS including prior years is \$125 million

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$30.2	\$4.9	\$	\$	\$	\$35.1
Total	\$30.2	\$4.9	\$	\$	\$	\$35.1

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Registry / Customer service modernization

Program purpose and need statement: This program includes updating and upgrading leased branch locations to accommodate the new dual line queuing model, signage, furniture and fixtures.

Status of asset management system: Not applicable

Program performance:

Tracker target	80% of Service Center customers served in 30 minutes or less	PfP tool forecast	Not forecasted in PfP tool
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FY2019-2023 size: \$3.775 million over five years

FY2020-2024 size request: \$4.775 million over five years

Justification for FY2020-2024 program size:

- Program size was adjusted to reflect expiring leases and necessary Service Center upgrades in FY 2020
- Program includes funding for additional service center accommodations in the Cape Cod region

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$1.1	\$1.1	\$1.0	\$0.5	\$0.6	\$4.3
Total	\$1.1	\$1.1	\$1.0	\$0.5	\$0.6	\$4.3

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Registry / Alternative service channels

Program purpose and need statement: This program funds customer service improvements through installation of self-service kiosks and third party service channels including AAA locations. This program is necessary to improve customer experience.

Status of asset management system: Not applicable

Program performance:

Tracker target

2020 – 65%
2022 – 70%
Long Term – 75% of transactions conducted outside Service Centers

PfP tool forecast

Not forecasted in PfP tool

FY2019-2023 size: \$2.25 million over five years

FY2020-2024 size request: \$2.25 million over five years

Justification for FY2020-2024 program size:

- Kiosk initiative will not be launched until FY2020-2024 CIP
- Kiosk initiative linked to implementation of International Registration Program
- Online transaction options, 3rd parties, and kiosks help to increase the number of customers serviced in Service Centers in 30 minutes or less by decreasing the customer volume of in-person visits

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$0.13	\$0.5	\$0.5	\$0.5	\$0.5	\$2.13
Total	\$0.13	\$0.5	\$0.5	\$0.5	\$0.5	\$2.13

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Transit / RTA facility and system modernization

Program purpose and need statement: This program improves or modernizes existing RTA facilities, systems or equipment.

Status of asset management system: Not applicable

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$26.3 million over five years

FY2020-2024 size request: \$97.2 million over five years

Justification for FY2020-2024 program size:

- Updated project lists for all five years were submitted by the RTAs which accounts for changes in the overall amount of funding forecasted.
- Program includes additional funds for implementation of an Automated Fare Collection system for the RTAs, future RTA maintenance facility upgrades, gradual electrification of the RTA bus fleet, and system wide implementation of automatic passenger counters.

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$4.6	\$10.01	\$25.8	\$23.5	\$33.1	\$97.15
Total	\$4.6	\$10.01	\$25.8	\$23.5	\$33.1	\$97.15

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Transit / RTA fleet upgrades

Program purpose and need statement: This program allows for RTA fleet growth. This program is necessary to meet services needs or expansion.

Status of asset management system: The RTAs and MassDOT are working to develop the new FTA Transit Asset Management plan. Draft TAM was submitted to FTA in December 2018.

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$0.0 million over five years
FY2020-2024 size request: \$1.0 million over five years

Justification for FY2020-2024 program size:

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$0.0	\$0.0	\$0.0	\$ 0.6	\$0.075	\$0.7
Total	\$0.0	\$0.0	\$0.0	\$0.6	\$0.075	\$0.7

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Modernization / Transit / RTA replacement facilities

Program purpose and need statement: This program constructs modernized RTA maintenance, administrative, operations or intermodal facilities.

Status of asset management system: The RTAs and MassDOT are working to develop the new FTA Transit Asset Management plan. Draft TAM was submitted to FTA in December 2018.

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP tool

FY2019-2023 size: \$16.4 million over five years

FY2020-2024 size request: \$8.1 million over five years

Justification for FY2020-2024 program size:

- These funds in the past were primarily for PVTA and FRTA maintenance facilities which are complete.
- With completion of the PVTA and FRTA facilities, program sized to address more routine modernization efforts for RTA replacement facilities.

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$3.0	\$1.4	\$0.04	\$1.7	\$1.1	\$8.1
Total	\$3.0	\$1.4	\$0.04	\$1.7	\$1.1	\$8.1

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Expansion programs

Expansion / Highway / Shared Use Paths

Program purpose and need statement: This program constructs shared use paths (also known as multi-use paths and trails) that are independent from a roadway.

Status of asset management system: Not applicable

Program performance:

Tracker target	Number of trail extensions and critical gaps completed	PfP tool forecast	927 miles of off-road bicycle and pedestrian facilities
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FY2019-2023 size: \$180.6 million over five years

FY2020-2024 size request: \$203.2 million over five years

Justification for FY2020-2024 program size:

- Existing program
- Program size is based on forecasted federal aid

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$9.1	\$11.7	\$11.8	\$11.8	\$14.6	\$59.0
FHWA	\$27.7	\$38.5	\$36.2	\$36.5	\$42.1	\$183.0
Total	\$36.8	\$50.3	\$50.0	\$48.3	\$56.7	\$242.0

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Expansion / Highway / Capacity

Program purpose and need statement: This program adds new connections or expands the existing transportation network.

Status of asset management system: Not applicable

Program performance: Tracker target Not established in Tracker PfP tool forecast Not forecasted in PfP

FY2019-2023 size: \$308.1 million over five years

FY2020-2024 size request: \$308.1 million over five years

Justification for FY2020-2024 program size:

- Program size represents spend down on legacy projects that have ongoing commitments through FY2024; includes allocation of design/project management costs.
- Highway spending related on South Coast Rail (Rail and MBTA program) is captured under South Coast Rail program.

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$16.9	\$14.9	\$11.7	\$9.7	\$4.4	\$57.4
FHWA	\$22.8	\$29.0	\$34.9	\$29.5	\$12.1	\$128.2
REP	\$1.4					\$1.4
Total	\$41.1	\$43.9	\$46.6	\$39.1	\$16.4	\$187.1

Staff recommends CPC accept program size as requested

Totals may not add due to rounding

Expansion / Rail / Vehicles expansion

Program purpose and need statement:

This program repairs, replaces, or acquires rail equipment (locomotives, coaches, ballast cars, light duty vehicles, etc.) to expand existing rail services, including the addition of passenger rail or freight rail. Prioritization will reflect economic opportunities for the new service, consistency with the statewide Rail Plan, and any contractual or regulatory requirements for action.

Status of asset management system:

Not applicable

Program performance:

Tracker target

Not established in Tracker

PfP tool forecast

Not forecasted in PfP

FY2019-2023 size: \$31.0 million over five years

FY2020-2024 size request: \$31.0 million over five years

Justification for FY2020-2024 program size:

- FY2020-2024 maintains existing program size as established in the FY2019-2023 plan

Estimated spending over five-years:

Funding source	2020 millions	2021	2022	2023	2024	2020-2024
Bond	\$0.5	\$0.5	\$1.5	\$1.5	\$3.5	\$7.5
Total	\$0.5	\$0.5	\$1.5	\$1.5	\$3.5	\$7.5

Staff recommends CPC accept program size as requested

Totals may not add due to rounding