



**Massachusetts Bay
Transportation Authority**

Proposed FY23-27 Capital Investment Plan

Public Meetings

March and April 2022

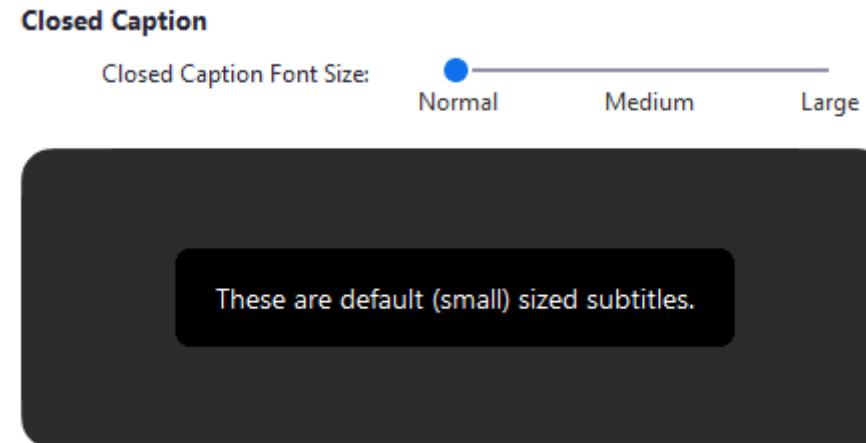
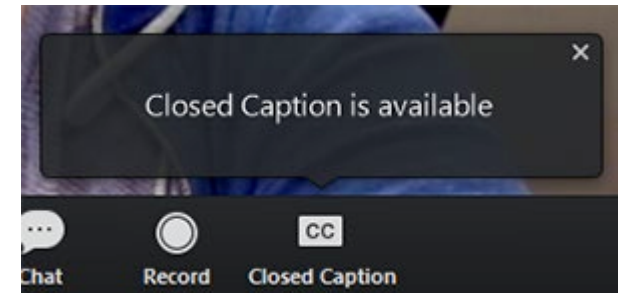
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- Thank you for joining the meeting! We appreciate your participation
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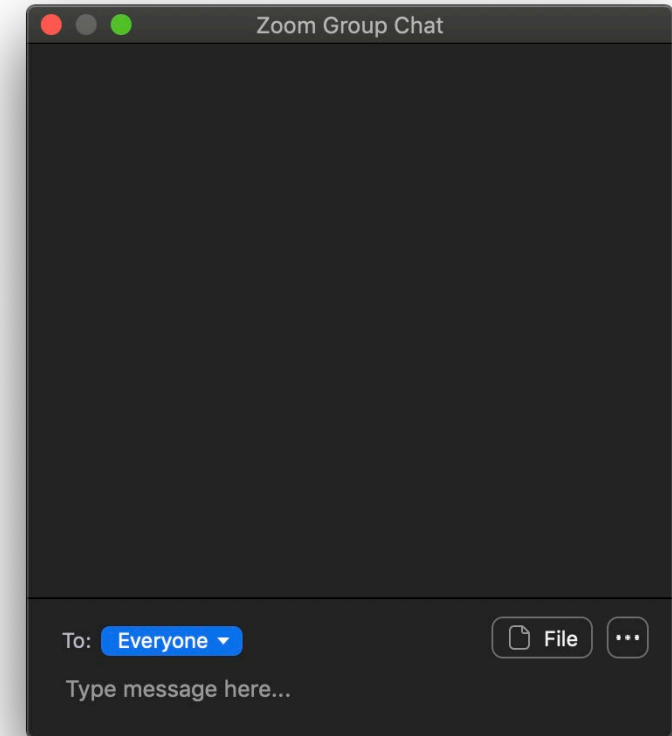
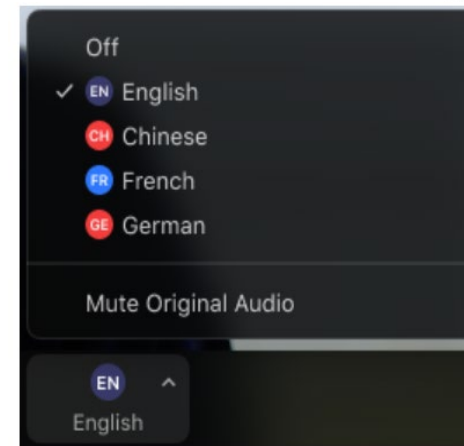
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5-Year MBTA Capital Investment Plan

What is the CIP?

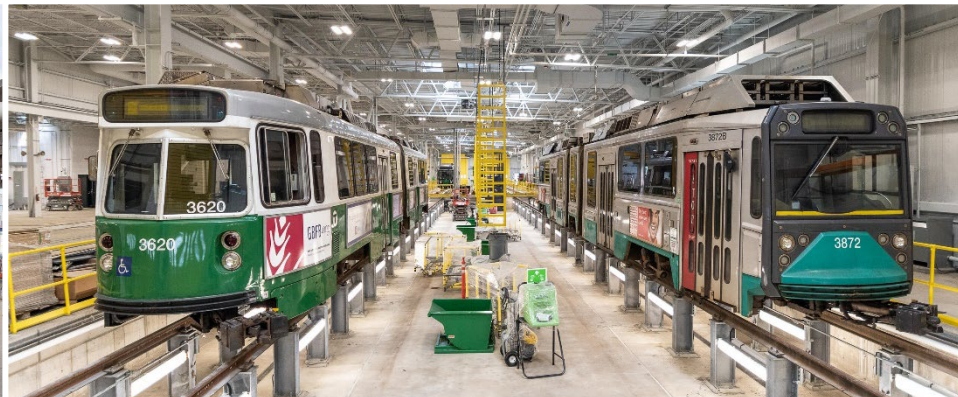
The proposed State Fiscal Year 2023-2027 (FY23-27) Capital Investment Plan (CIP) of the MBTA. It is a short-term, financially constrained investment program that includes all our capital expenditures over the next five years

What is its purpose?

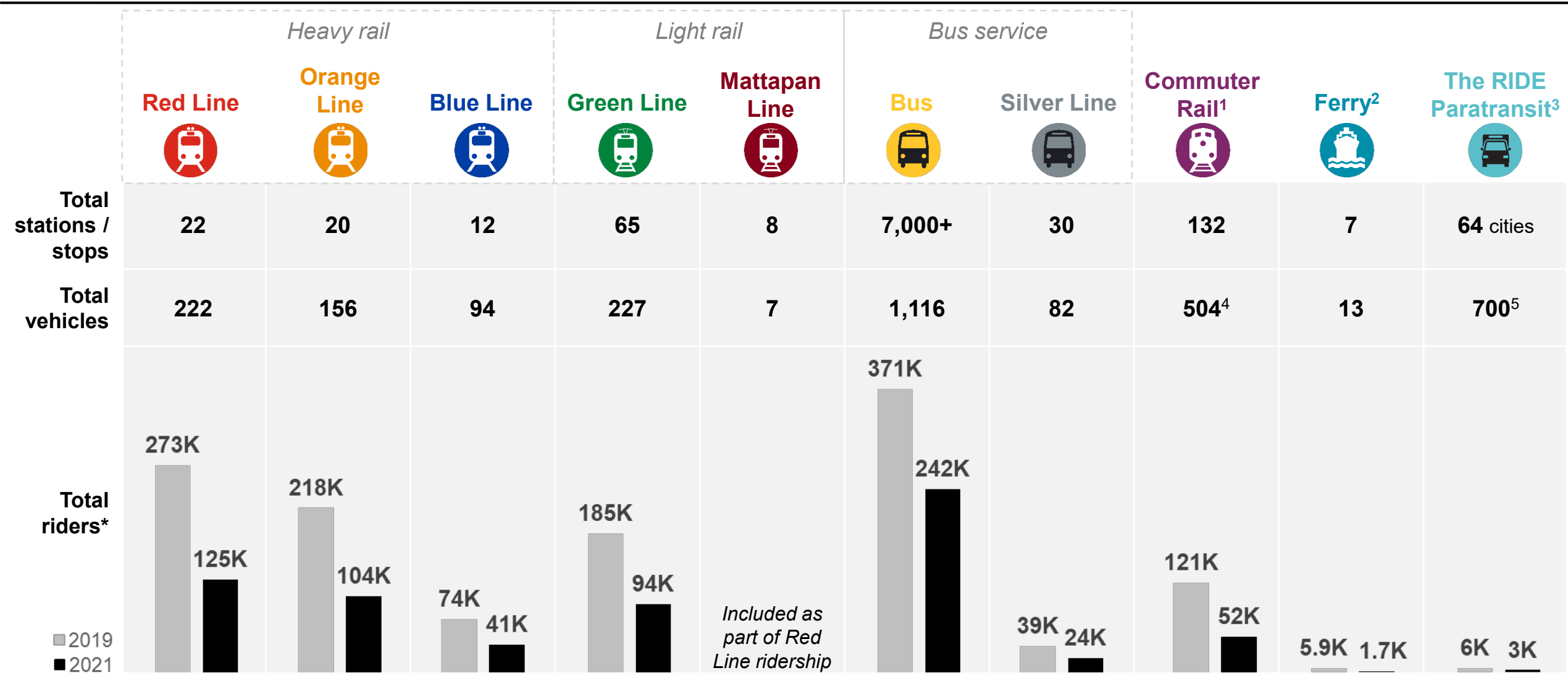
It funds the planning, construction, and capital maintenance of assets across the transit network. It is a rolling five-year plan, updated annually

What does it include?

Over 500 unique capital projects to modernize, expand, and increase the reliability of the MBTA transit network. These investments support the Authority's overarching priorities and performance goals



The System | MBTA by the Numbers



* Average weekday trips as of Oct-19 and Oct-21, ¹ Operated by Keolis, ² Operated by Boston Harbor Cruises, ³ Operated by National Express Transit and Veterans Transportation Services, ⁴ 102 locomotives and 402 coaches, ⁵ 250 automobiles and 450 vans

MBTA Capital Investment by Fiscal Year

The MBTA spent \$1.9B on capital improvements in FY21, which is a \$250M increase from FY20 and a three-fold increase from FY14

What have we accomplished with these investments?



Green Line Extension Union Square Branch opened on March 21 for passenger service.

Green Line B Branch station consolidation, D Branch track and signal replacement, and E Branch track replacement



Red and Orange Lines continued vehicle replacement, signal upgrades, infrastructure and facility improvements



Bus lane construction, including center-running bus lane on Columbus Avenue in Boston

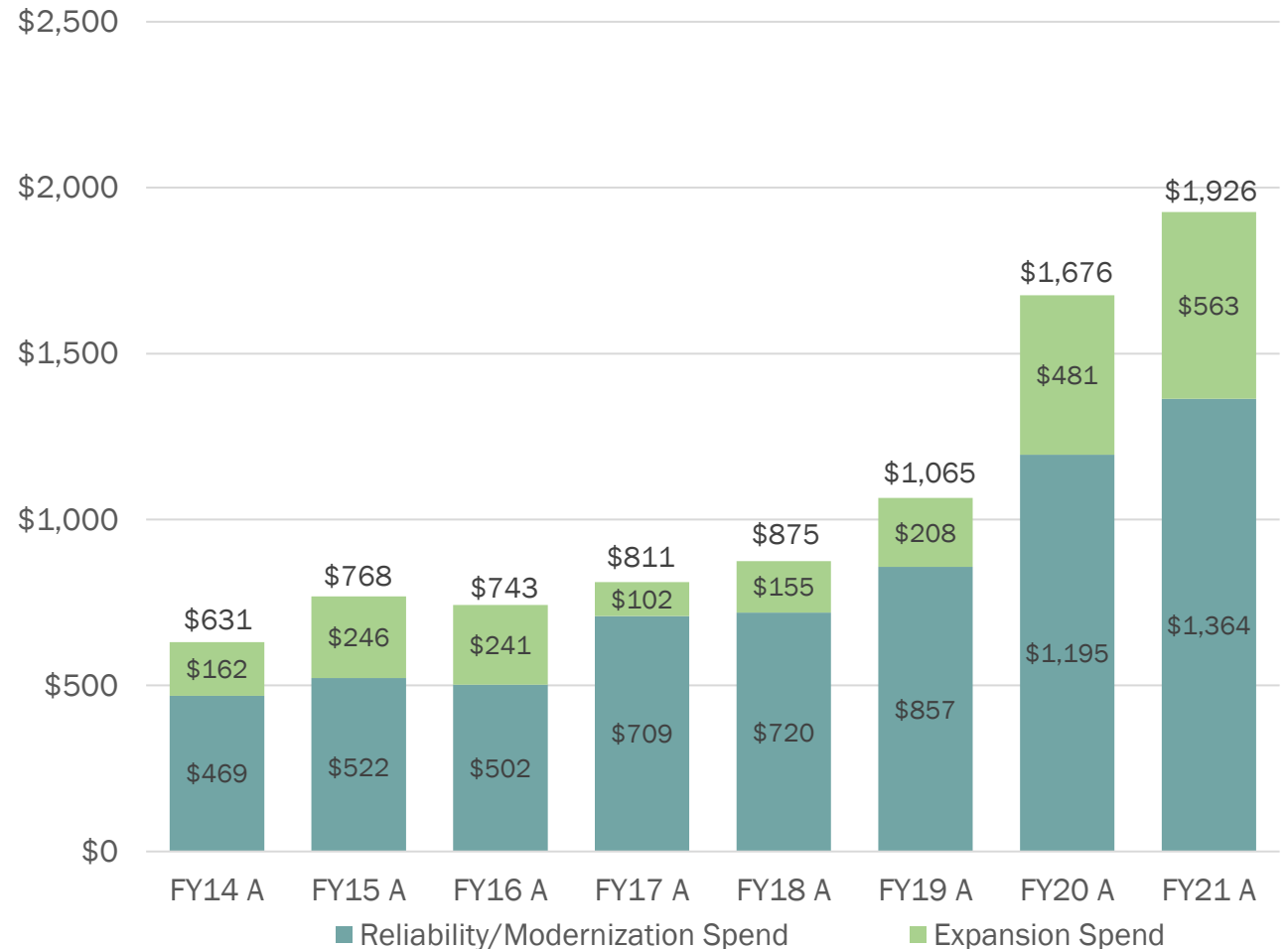
Groundbreaking at new Quincy Bus Facility



New, fully accessible Chelsea Commuter Rail Station

South Coast Rail under construction

MBTA Capital Investment by Fiscal Year (\$M)



FY23-27 MBTA CIP | Primary Goals

- The FY23-27 CIP is the first five-year plan to be published since the FY20-24 CIP and the first since the COVID-19 pandemic began.

Key goals

- ✓ Maintain a state of good repair
- ✓ Modernize assets and expand service
- ✓ Meet performance goals and priorities
- ✓ Improve public awareness of MBTA investments

Overarching priorities

Reliability & Modernization

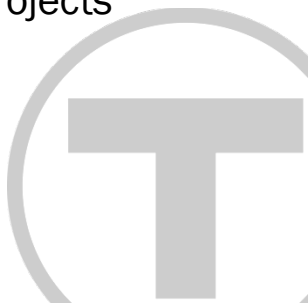
of the transit system by maintaining, improving, and modernizing assets to accommodate growth

Expansion

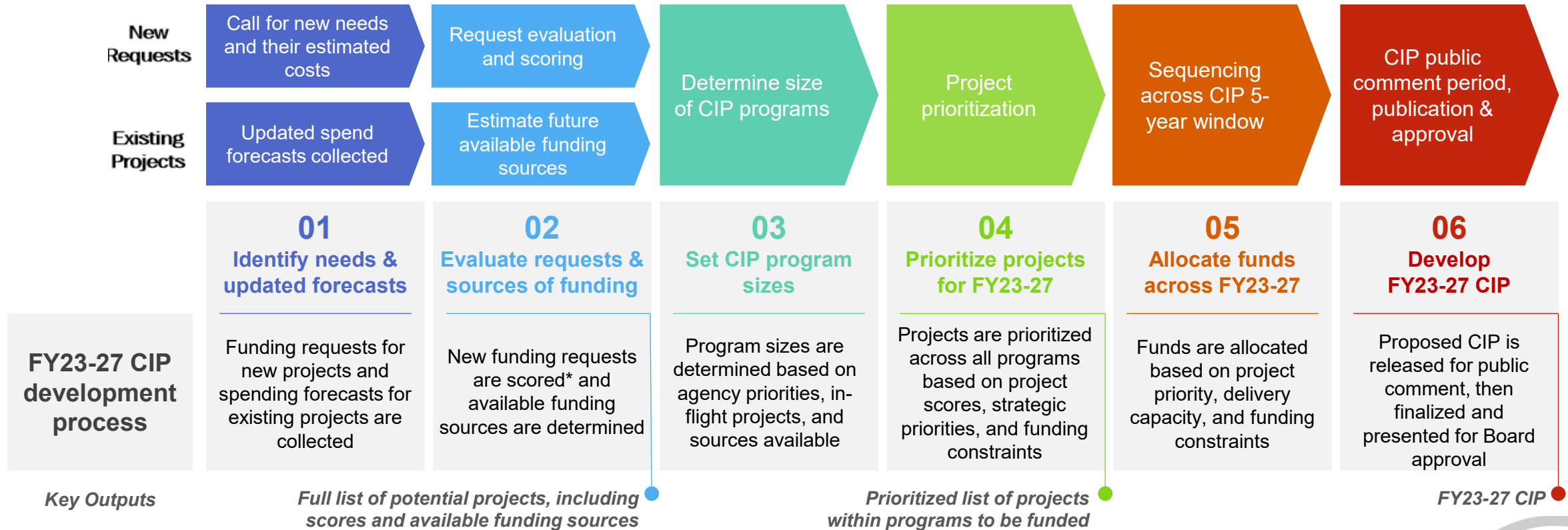
of the transportation network to increase capacity and multimodal options

10 investment programs

- Priorities are broken into investment programs, which are annually sized based on available resources
- Programs under the **Reliability** and **Modernization** priorities are largely asset-based
- **Expansion** programs fund planning and design for expansion projects



CIP Development | 6 Key Steps



*Requests are evaluated based on system preservation, mobility, cost effectiveness, environmental and health effects, policy support, social equity, economic impact, and safety.



CIP Investment Programs

Reliability and Modernization Programs (7)



Bridge and Tunnel

Repairs, reconstructs, and replaces Commuter Rail and transit bridges, tunnels, culverts, and dams



Guideway, Signal, and Power

Rehabilitates, replaces, and upgrades guideway, signal, and power assets across commuter rail, transit, and bus systems



Maintenance and Administrative Facilities

Rehabilitates and upgrades maintenance and administrative facilities



Passenger Facilities

Rehabilitates and upgrades stations, stops, and parking facilities to improve accessibility and the customer experience



Vehicles

Rehabilitates and replaces revenue fleets and non-revenue vehicle equipment for reliable and safe operations



Business and Operational Support

Investments in asset management, safety and security, communications, and other systems supporting operations



Technology and Innovation

Investments in technology to enhance productivity, modernize the system, and improve quality of service

Expansion Programs (3)



Green Line Extension (GLX)

Extension of Green Line service from Lechmere to Somerville and Medford



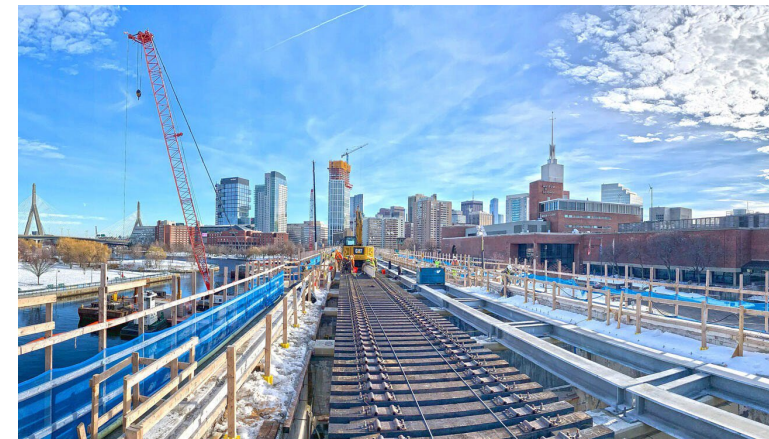
South Coast Rail (SCR)

Extension of Commuter Rail service to Fall River, New Bedford, and Taunton on the South Coast



Expansion Projects

Planning and design of targeted expansion projects identified as next priorities



Funding Sources | Overview



Federal funding

FTA Formula funds

- Urbanized Area Program (Section 5307)
- Buses and Bus Facilities (Section 5339)
- State of Good Repair (Section 5337)

Discretionary funds

- Competitive processes run by federal agencies. Funds included in the CIP after award



State funding

Project-Specific

- Commonwealth bond proceeds for specific projects including:
 - South Coast Rail Phase 1, including 16 Commuter Rail coaches
 - Green Line Extension
 - Red Line/Orange Line vehicles and infrastructure improvements
 - Procurement of 64 Bi-Level Commuter Rail Coaches



MBTA sources

Bond

- Taxable, tax-exempt, and sustainability bonds

Loans

- Build America Bureau (BAB) loans through TIFIA and RRIF

Operating Budget Transfer

- Funds transferred from MBTA's operating budget to the capital program

Capital Maintenance Fund (CMF)

- Authority's fund to be used at the discretion of the CFO

Note - The sum of MBTA bonds and loans is limited by the overall coverage ratio in order to maintain the MBTA's credit rating.



Others

Reimbursable

- Outside funds through partnerships and formal agreements

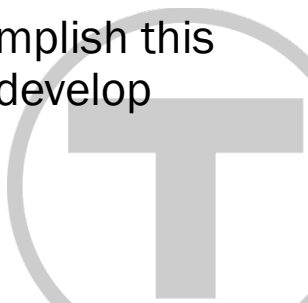


Bipartisan Infrastructure Law



The **Bipartisan Infrastructure Law (BIL)** reauthorizes surface transportation programs for FY 2022-2026 and provides funding through two channels (1) Federal formula programs and (2) discretionary or competitive grant programs

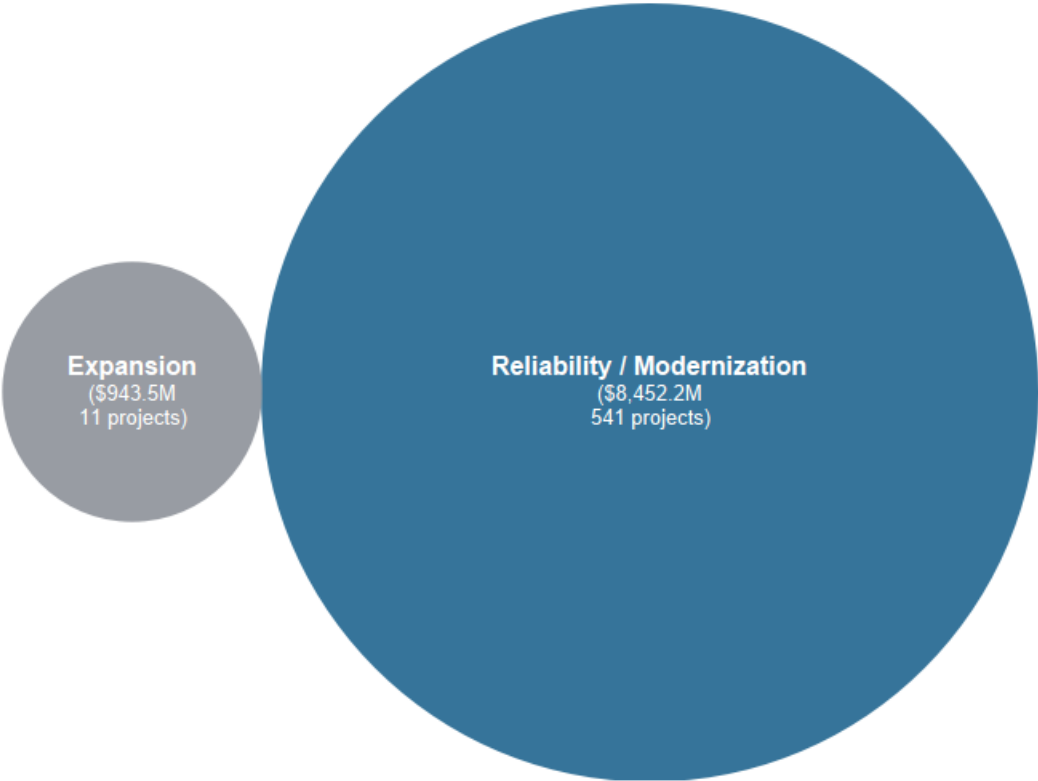
- Predictable formula funding enables transit agencies to better manage long-term assets and address the backlog of state of good repair needs
 - Each grant program specifies eligible recipients, eligible activities and a local match requirement
 - Annually, Congress appropriates funds, FTA then publishes a Notice in the Federal Register that provides an overview of the apportionments and allocations for the various programs
- The Bipartisan Infrastructure Law (BIL) included new and reauthorized existing transit and infrastructure competitive grant programs that the MBTA will be eligible to apply for over the 5-year timeframe of the authorization
 - The MBTA will strive to pursue funding for projects that align with the MBTA's stated goals, strategic mission, and the 5-year CIP which is the MBTA's statement of priorities for capital investments
 - The MBTA will aggressively pursue all eligible discretionary funding opportunities in BIL. To accomplish this goal we will, (1) proactively identify grant opportunities, (2) identify competitive projects and (3) develop and submit strong applications



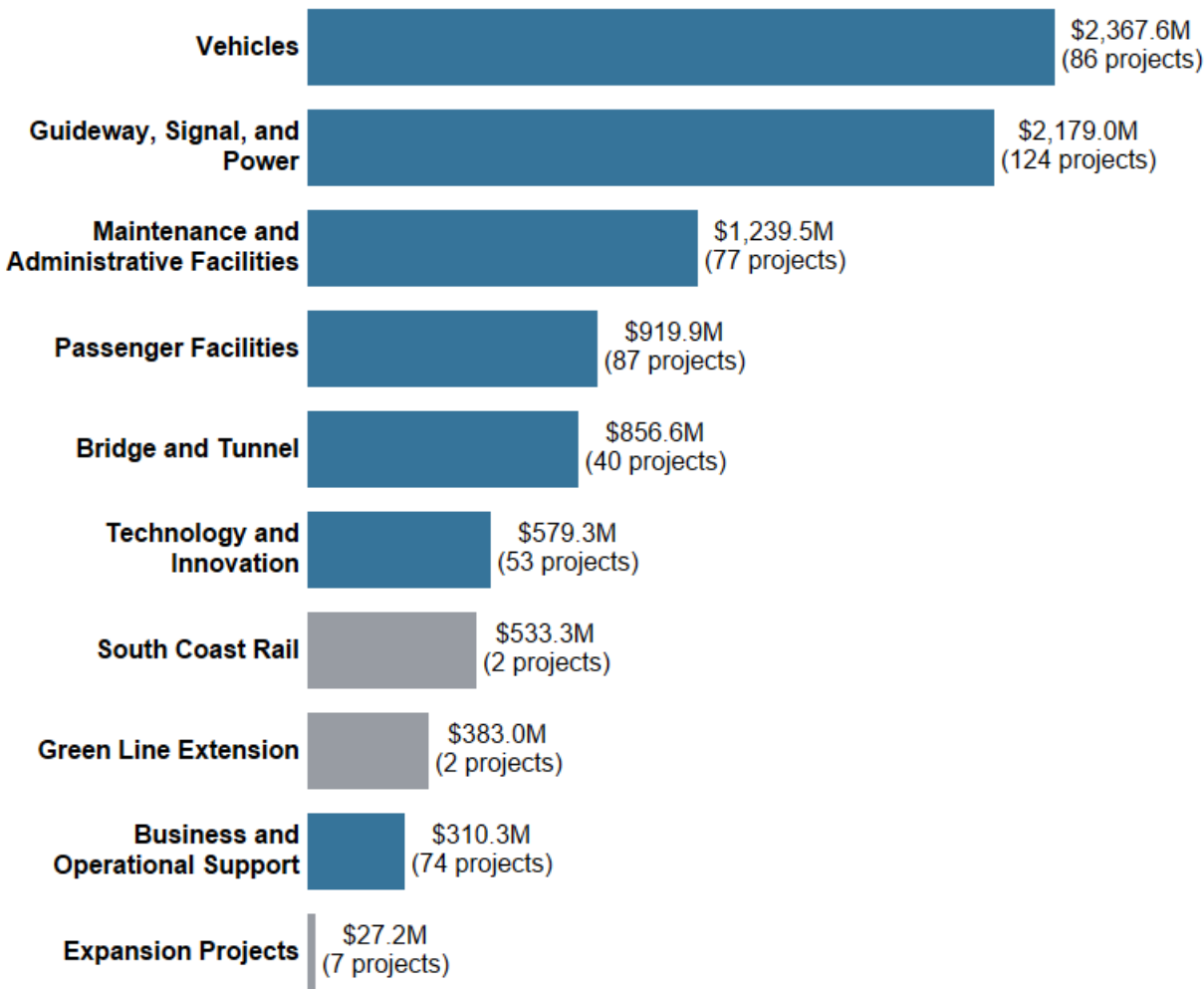
FY23-27 CIP | Summary

Total Projects	FY23-27 Programmed Spend	Executing Departments
552	\$9,395.7M	32

FY23-27 Programmed Spend by CIP Priority

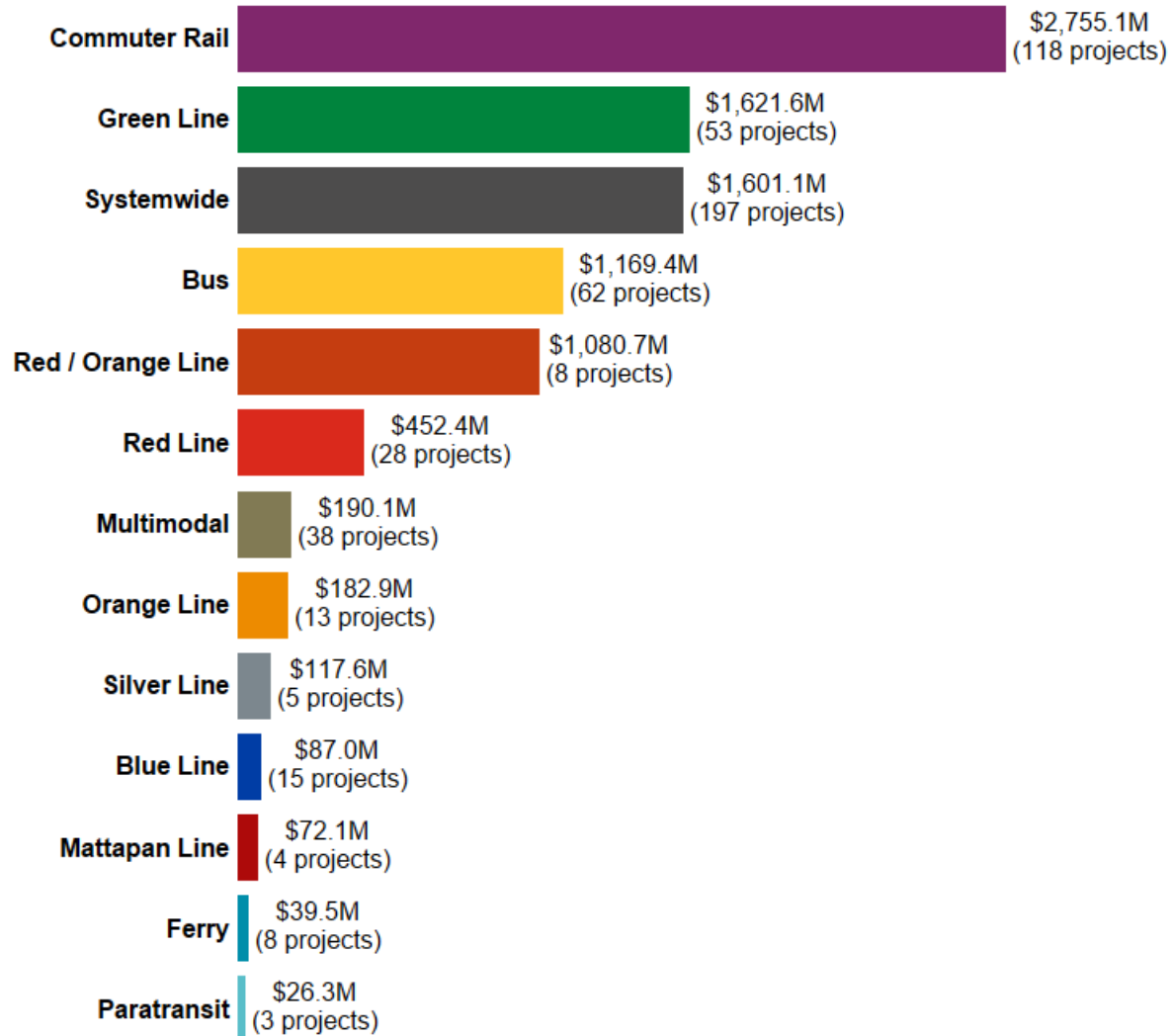


FY23-27 Programmed Spend by CIP Program



FY23-27 CIP | Summary

FY23-27 Programmed Spend by Mode



Top 15 Projects, by FY23-27 Programmed Spend

CIP ID	Project Name	CIP Program	FY23-27 Total	Authorized Budget
P0362	Red / Orange Line Vehicles	Vehicles	\$579.0M	\$1,073.5M
P0160	South Coast Rail Expansion	South Coast Rail	\$493.5M	\$920.8M
P0265	Fare Transformation	Technology and Innovation	\$420.1M	\$783.4M
P0095	Green Line Extension	Green Line Extension	\$357.7M	\$2,118.6M
P0618	Procurement of 40ft Enhanced Electric Hybrid Buses	Vehicles	\$350.6M	\$353.9M
P0671a	Quincy Bus Facility Modernization	Maintenance and Administrative Facilities	\$326.6M	\$402.1M
P0369	Green Line Type 10 Light Rail Fleet Replacement	Vehicles	\$311.2M	\$800.0M
P0285	Signal Program - Red/Orange Line	Guideway, Signal, and Power	\$240.5M	\$289.1M
P0551	Longfellow Approach	Bridge and Tunnel	\$185.2M	\$210.0M
P0606	ATC Implementation - North Side Commuter Rail Lines	Guideway, Signal, and Power	\$173.6M	\$416.8M
P0927	Rolling Stock - Locomotive and Coach State of Good Repair and Resiliency	Vehicles	\$173.1M	\$174.1M
P0370	Green Line Train Protection	Guideway, Signal, and Power	\$168.4M	\$212.9M
P0018	North Station Draw 1 Bridge Replacement	Bridge and Tunnel	\$157.4M	\$573.8M
P1152	Procurement of Hyundai Rotem Bi-Level Coaches - Option	Vehicles	\$147.7M	\$160.9M
P0893	Procurement of 67 Bi-Level Commuter Rail Coaches	Vehicles	\$147.3M	\$276.1M
Grand Total			\$4,231.9M	\$8,765.8M

FY23-27 CIP | Safety Spotlight

430+ safety related projects, accounting for roughly \$7.5B of programmed spending are part of the 5-year CIP. This includes but is not limited to:



5 projects currently being executed by the Safety department that comprise:

- Safety management system implementation
- Occupational, personnel, and electrical health and safety
- Infrastructure and PPE improvements



230+ projects to inspect, repair, and upgrade stations, tracks, bridges, tunnels, signals, power, and IT infrastructure and components



100+ projects to modernize maintenance and operation facilities, ensure workforce safety, and prepare for new fleets

You can also visit [mbta.com/safety](https://www.mbta.com/safety) for more information on the MBTA's safety initiatives

Key Safety Projects

Requests for new and existing projects are evaluated using 8 scoring criteria, which include safety

Rapid Transit

- Green Line Train Protection (P0370)
- Blue Line Infrastructure Improvements (P0631)

Commuter Rail

- Commuter Rail Positive Train Control (P0148)
- ATC Implementation – North Side Commuter Rail Lines (P0606)

Bus and Paratransit

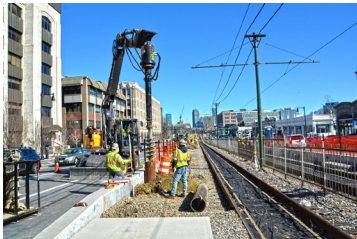
- Bus Facility Interim Improvements (P0942)
- Facility Circulation Safety Improvements (P1003)

Systemwide

- OHS Steering Committee – PPE and Infrastructure Improvements (P0646)
- Structural Repairs Systemwide (P0852)

FY23-27 CIP | Accessibility Spotlight

80+ projects with significant accessibility benefits, accounting for roughly \$1.2B of programmed spending are part of the 5-year CIP. This includes but is not limited to:



30+ projects to upgrade stations and bus stops linked to accessibility, ranging from small to full scale upgrades to platforms, paths of travel, surfaces, and other components



35+ projects to upgrade and improve elevators, escalators, and wayfinding at key stations to bring them into compliance with ADA/MAAB, BCIL, and internal guidelines and standards



6 projects to procure and overhaul rail, bus, and ferry vehicles with improved accessibility features that amount to roughly \$746M in additional accessibility related spending

You can also visit [mbta.com/accessibility](https://www.mbta.com/accessibility) for more information on accessibility initiatives

Key Accessibility Projects

Requests for new and existing projects are evaluated using 8 scoring criteria, which include accessibility under the mobility criteria

Rapid Transit

- Ruggles Station Improvements Phase 2 (P0856)
- Symphony Station Improvements (P0168)
- Downtown Crossing Elevator Phase 1 (P0066g)

Commuter Rail

- High Priority Stations Accessibility Improvements Program (P1150)
- Winchester Center Station (P0179)
- Natick Center Station Accessibility (P0174)

Bus

- Bus Priority and Accessibility Improvements (P0613)
- Bus Route Safety and Service Improvements (P0044)

FY23-27 CIP | Sustainability & Resiliency (S&R) Spotlight

130+ sustainability and resiliency related projects, accounting for roughly \$3.7B of programmed spending are part of the 5-year CIP. This includes but is not limited to:



60+ resiliency projects, including vulnerability assessments, asset hardening and management to curb climate change and environmental impacts systemwide



20+ projects related to energy, waste management, and environmental compliance and remediation to ensure efficiency and long-term sustainability and resiliency of service and facilities



35+ projects to procure, overhaul, and upgrade fleet and facilities for bus electrification, vehicle efficiency, and reduction of carbon footprint

You can also visit mbta.com/sustainability for more information on S&R initiatives

Key S&R Projects

Requests for new and existing projects are evaluated using 8 scoring criteria, which include sustainability and resiliency under the system preservation, environmental and health effects criteria

Rapid Transit

- Fenway Portal Flood Protection (P0117)
- Blue Line Flood Protection (P0582)

Bus

- Procurement of 40ft Battery Electric Buses and Related infrastructure (P0653)
- Charlestown Bus - Seawall Rehabilitation (P0104)

Systemwide

- Climate Change Resiliency Vulnerability Assessment (P0680)
- Environmental Compliance Management (P0435)
- 45 High Street Master Plan and Systems Resiliency (P0603)

CIP Document | Structure

The Proposed FY23-27 CIP document is structured around three major components:



1

Overview of the CIP

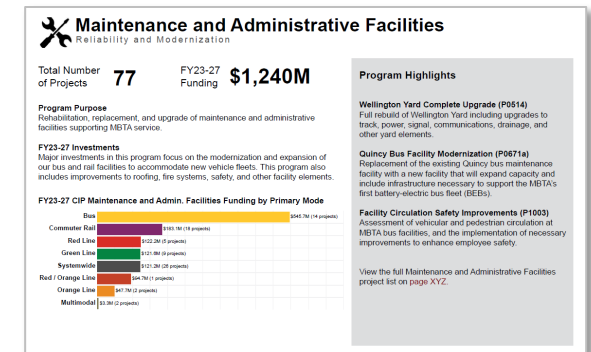
- What is the CIP?
- Structure of the CIP
- Funding Sources

- Annual Development Process
- Public Engagement

2

FY23-27 Investment Programs

- One-page overview for each CIP program summarizing program goals and planned investment levels for FY23-27



3

FY23-27 Project List

- Detailed listing of all capital projects included in the FY23-27 CIP
- Includes project description, phase, primary mode, planned five-year spend, and total authorized budget

We want to hear from you!

- Additional information about the CIP, including the full proposed FY23-27 CIP document, is available at mbta.com/cip
- Join us for one of our three virtual public meetings to learn more about the CIP and share your comments
- You are also welcome to submit your comments by:
 - Completing the online [CIP comment form](#)
 - Sending an email to: cipengagement@mbta.com
 - Sending a letter to: MBTA Capital Investment Plan
c/o Adam Kamoune
10 Park Plaza, Suite 3830
Boston, MA 02116

Public Meeting Schedule

- Thursday, March 31st from 6:00-7:30 pm
- Wednesday, April 6th from 6:00-7:30 pm
- Tuesday, April 12th from 7:00-8:30 pm

Meetings will be held via Zoom. Registration links, presentation materials, and meeting recordings will be made available at mbta.com/cip.

Please note that all comments on the proposed FY23-27 CIP must be received by April 25, 2022.



Raising your hand

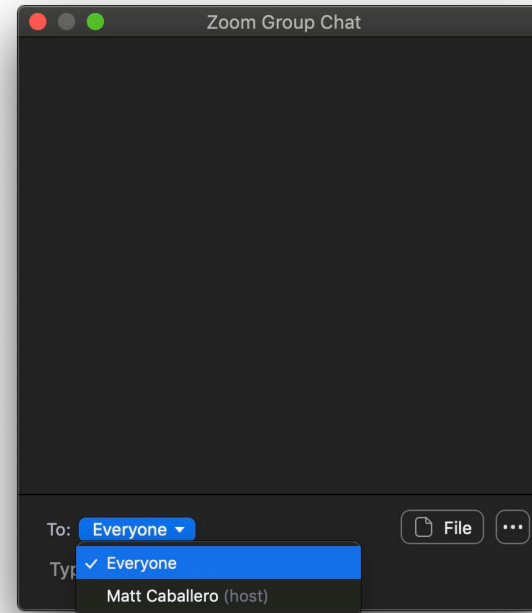
- Please use Zoom's "Raise Hand" feature to indicate if you have a comment. **If you have a comment, please raise your hand and wait for the moderator to give you permission to speak.**
 - By default, all attendees are muted so that only the presenters can be heard. When you raise your hand, it alerts the moderator that you'd like to speak. The moderator will unmute attendees to ask questions in the order that they raised their hands.



To speak, click
"Participants"
then
"Raise hand"



Send a chat
to the moderator



***9**
Raise Hand