

The FY25-29 CIP works towards Healey-Driscoll Administration and MBTA Priorities

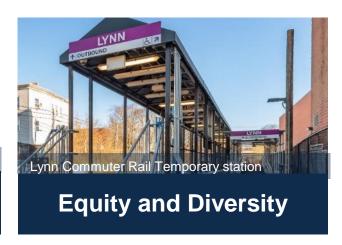
In accordance with Gov. Healey, Lt. Gov. Driscoll, Sec. Tibbits-Nutt and GM Eng, the Proposed MBTA's FY25-29 CIP builds towards a transportation system of the future with investments that:

- ✓ Address critical asset needs,
- ✓ Keep the T on a path to better safety, service, and sustainability, and,
- ✓ Focus on the investment objectives listed below:











Capital Investment Plan (CIP) Timeline

CIP step-by-step process

- Identify capital needs
- Evaluate and score project requests
 - Determine funds available
 - Prioritize projects for funding
 - Sequence investments
 - Release CIP annual update

April (→ 11th: MBTA Finance and Audit Subcommittee: Presentation on proposed FY25-29 CIP Boston MPO: Presentation on proposed FY25-29 CIP → 25th: MBTA Full Board: Presentation on proposed FY25-29 CIP Public comment period began, and the CIP Book and project list were posted online May \rightarrow 2nd: CIP Public Meeting #1 (in-person) CIP 21-day public comment → **7**th: CIP Public Meeting #2 (virtual) period → **16**th: Public comment period concluded

- June C
 - → 6th: MBTA Finance and Audit Subcommittee: Presentation of final FY25-29 CIP
 - → 11th: MBTA Full Board: Vote by MBTA Full Board to approve final FY25-29 CIP Planned public release of final CIP Book and project list*

FY25-29 Proposed CIP Public Engagement | Participation

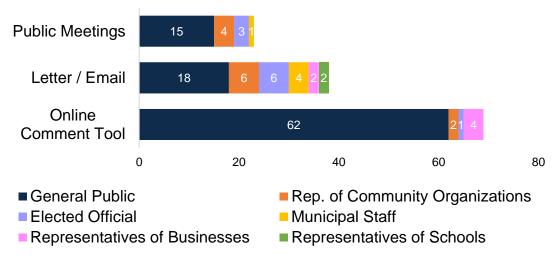
The proposed FY25-29 MBTA CIP public comment period took place from **April 25 to May 16, 2024**.

The MBTA received a total of **130** comments from **335** individuals and saw an average of **22** attendees at two public meetings.

Comments were analyzed as follows:

- Each unique message received is considered a separate comment.
 Individual refers to the person(s) sending or co-signing a comment.
- Each comment is tagged to one or more mentions of a particular topic, such as Commuter Rail Electrification or State of Good Repair





Number of Individuals Submitting Comments, by Type of Commenter





FY25-29 Proposed CIP Public Engagement | Key Mentions*

Rapid Transit











- Support for Green Line track and station accessibility improvements and requests for additional funding
- Support for Red-Blue Connector and requests for construction funding
- Requests to fund improvements to the condition of Red Line stations
- Requests for increased service frequency and reliability and addressing rapid transit speed restrictions

Bus





- Support for bus electrification and requests to accelerate work
- Requests for additional funding for bus maintenance facilities to support electrification, including Arborway, Quincy, and N. Cambridge
- Requests to increase funding allocated to bus lanes and transit signal priority
- Requests to increase bus service frequency and service hours

Commuter Rail



- Support for Commuter
 Rail electrification and the
 Fairmount Line Infrastructure
 for Decarbonized Service pilot
- Support for accessibility improvements at Commuter Rail stations
- Support for investments toward Regional Rail, including early action items on Framingham/Worcester and Old Colony Lines
- Requests for construction funding to rehabilitate
 Commuter Rail stations in Newton

Systemwide / Other







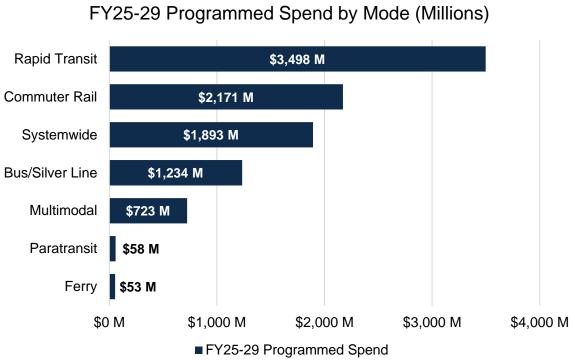
- Requests to focus investments on addressing State of Good Repair
- General interest in the capital planning and project prioritization process
- Support for communicating funding needs
- Support for CIP investment objectives of accessibility, sustainability and resiliency, equity, and environmental justice.



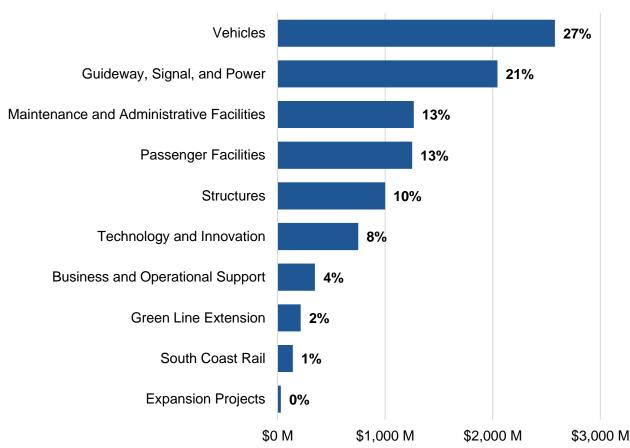
^{* &}quot;Key mentions" are topics that were brought up in at least 5 comments.

FY25-29 CIP: Programmed Spend

The CIP includes over 640 projects with a programmed spend of \$9.6B over the next five fiscal years, including \$843M¹ in new funding:



FY25-29 Programmed Spend by CIP Program





Updates to the Proposed FY25-29 CIP

- Since the release of the proposed FY25-29 CIP in April, a number of changes have been made to the document to reflect the following:
 - New federal funding awarded to the T by the Boston Region MPO
 - Recently-awarded federal discretionary grants
 - Federal funding transfers from other public entities (MassDOT, RTAs, etc.)
 - New projects and significant project changes incorporated into the FY24-28 CIP via the MBTA's in-year CIP Change Process, as outlined below
 - Other minor changes to existing project budgets to reflect updates since the release of the proposed CIP



New Funding from the Boston Region MPO

 The MBTA sought excess FFY25 federal funding from the Boston Region MPO, ultimately receiving \$26.6M for the following six projects:

CIP ID	Project Name	New Funding (incl. MBTA match)
P1005a	Columbus Ave Bus Lanes Phase 2	\$7.5M
P1249	Jackson Square Station Accessibility Improvements	\$7.3M
P0940	Rail Modernization – Early Action Items	\$6.0M
P0929	Central Square Station Accessibility Improvements	\$5.0M
P0915	Nubian Square Circulation and Accessibility Improvements	\$5.0M
NEW	Pedal & Park System Modernization	\$2.5M



An aerial view of the Columbus Avenue bus lanes



Bike cage at Forest Hills Station



FY25-29 CIP Highlights

Major Investments



Stations and Structures

- Full funding for North Station Draw 1 Bridge Replacement
- Life-extending repairs on multiple bridges
- Station accessibility projects along the Green Line
- Urgent station repairs, from stairs to lighting



Track

- Vital track improvement work on rapid transit lines
- Hi-Rail access tunnel on the Red Line
- Washout prevention along the Commuter Rail system



Commuter Rail & Ferry

- 20-minute decarbonized service along the Fairmount Line
- Ferry infrastructure, including accessibility improvements



Equity and Diversity

- Investments toward Regional Rail service along the EJ Corridor
- Accessibility and circulation improvements at Nubian Square **Bus Station**
- Improvements to maintenance and field facilities



Bus Network

- Bus Network Redesign implementation
- New bus procurement
- Transit priority quick build and major corridor projects



Sustainability and Resilience

- Climate change vulnerability and adaptation planning
- Energy efficiency improvements
- Increased number of EV charging stations



FY25-29 CIP Programmatic Spotlights

Major investments in the Proposed FY25-29 CIP have been showcased in previous presentations before the Board. A complete inventory of the 640+ unique Proposed FY25-29 CIP projects is available in both the CIP Book and the CIP Project List.

To provide a greater understanding of the breadth of projects prioritized for funding in this year's proposed CIP, the following **Spotlight** slides highlight projects in the four CIP Programs with highest programmed spend in FY25-29.

Passenger Facilities

Maintenance and Administrative Facilities

Vehicles

Guideway, Signal, and Power



FY25-29 CIP Book | Structure

The final FY25-29 CIP Book and project list will be available at:

www.mbta.com/cip



The CIP Book defines the MBTA's Capital Plan and details investment priorities and key process considerations, including:

- Overview of the Capital Investment Plan and its development process
- Summary of our current context, challenges, and investment objectives
- Details about our key modal initiatives
- Snapshot of our overall capital program strategy beyond the CIP



Spotlight: Passenger Facilities

\$1.25B in FY25-29 funding for improvements to stations across 106 projects, including \$114M in new funding allocated through the FY25-29 CIP development process:



Green Line trains at Waban Station on the D Branch

\$29M for accessibility improvements at GL D-Branch surface-level stations

Central Sq. Station Accessibility Improvements (P0929)



A rendering of new accessible elevators in Central Square

\$5M in new MBTA funding for accessibility improvements

Station Inspection and Improvement Program (P1308)



Ceiling work in progress at Andrew Square Station

\$10M to support systemwide inspections, repairs, and improvements



Spotlight: Maintenance and Administrative Facilities

\$1.27B in FY25-29 funding for MBTA facilities across 100 projects, including \$85M in new funding added through the FY25-29 CIP development process.



Blue Line heavy rail vehicle at Orient Heights Maintenance Facility

\$15M for minor facility repairs and improvements to address safety and operational needs



Commuter Rail locomotive at maintenance facility

\$28M to support various improvements at Commuter Rail maintenance and administrative facilities systemwide



Spotlight: Vehicles

\$2.58B in FY25-29 funding for vehicle procurement and maintenance across 88 projects, including \$212M in new funding added through the FY25-29 CIP development process.



Red Line train passing over Longfellow Bridge

\$39M to develop and perform conditional and reliability assessments and life-extension work on RL fleet



Commuter Rail locomotive at Blue Hill Ave Station

\$35M to overhaul 40 Commuter Rail locomotives to improve reliability, reduce risk of unplanned maintenance



Charlestown Bus Maintenance Facility

\$34M to overhaul 175 CNG buses to improve reliability and reduce the risk of unplanned maintenance



Spotlight: Guideway, Signal, and Power

\$2.04B in FY25-29 funding for improvements to track, signals, and power systems across 149 projects, including \$164M in new funding added through the FY25-29 CIP development process.



Fairmount Line Commuter Rail riders wait to board at Blue Hill Ave Station

\$60M to deliver the infrastructure necessary to operate BEMU service every 20 minutes on the Fairmount line



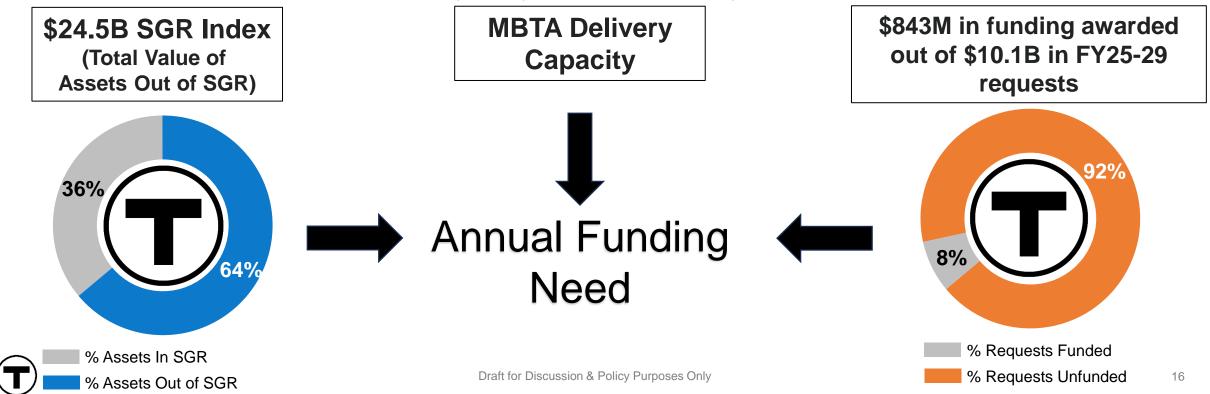
Work on signal upgrades at Kendal Green Station in Weston, MA

\$7.5M for various signal upgrades and improvements across the Commuter Rail network



Annual Capital Need

- The Board has asked us to provide a statement of annual capital funding need
- Multiple factors play into a projection for an annual funding need.
 - The \$24.5B SGR Index represents the T's baseline State of Good Repair needs, based on condition of existing assets
 - \$843M in available funding sources this year resulted in over \$10B in unfunded CIP funding requests, addressing not just SGR but also reliability, modernization, and expansion.
 - The MBTA and its industry partners are constrained in our ability to deliver projects due to internal and external bandwidth, ROW access, and our need to minimize impact to public and service disruptions.



Board Vote

VOTED:

To approve the Fiscal Year 2025-2029 Capital Investment Program ("CIP"), as presented at the June 11, 2024 meeting of the MBTA Board of Directors and as attached hereto as Appendix A, and to authorize the General Manager, in the name of and on behalf of the Massachusetts Bay Transportation Authority, to take any steps he deems necessary and appropriate to provide notice to the Legislature and the public of the CIP, pursuant to M.G.L. c. 161A, §5.



North Station Draw 1 Bridge – Proposed Approach

- The North Station Draw 1 project will replace a deficient 1930's drawbridge outside of North Station
- Current plans call for the construction of three new vertical lift bridges, and an extension of the existing station platform, with a total authorized budget of \$1.2B (including outside the FY25-29 window).
- A pedestrian pathway across the Charles River is currently not included as part of this project's funding due to permitting and constructability concerns as well as our constrained capital funding availability
- The MBTA is prioritizing funding for the replacement of this critical drawbridge to ensure our continued ability to run Commuter Rail service from North Station, and we will continue to work with our partners to determine a path forward for the pedestrian crossing





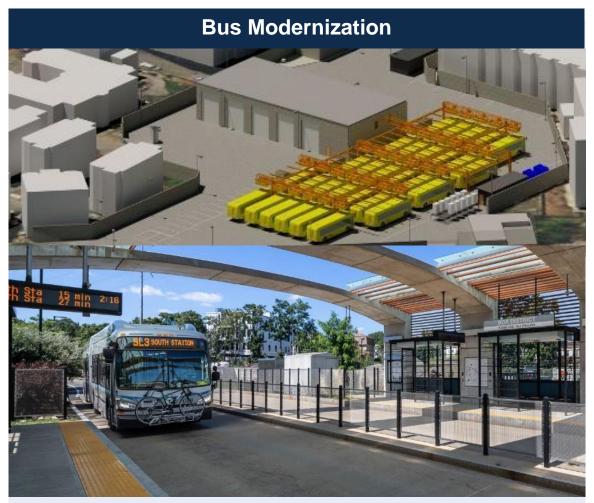
Our Capital Program Strategy beyond the CIP

Under the leadership of GM Eng, we are revamping our capital program strategy to generate efficiencies and deliver projects on-time and on-budget as we face our challenges head-on. To advance the Commonwealth's vision, the Authority is:

- Reviewing prior projects in the CIP to ensure efficient spending, and coursecorrect as needed, while critically reviewing new project requests
- Using asset information to drive investments
- Restructuring the organizational delivery of capital projects
- Improving right-of-way access to minimize disruptions and construction costs
- Building internal workforce capacity to support State of Good Repair work
- Enhancing competitiveness and supplier and contractor diversity



Bus and Rail Modernization



Top: North Cambridge bus facility retrofit; Bottom: transit priority service (dedicated bus ROW).





Balancing Safety, Reliability, and Modernization

To prioritize the safety of our riders, the reliability of our service, and the modernization of our assets, the Authority has made difficult decisions, grounded both in asset criticality and our ability to deliver, to repurpose and allocate new or additional funding to:



Track work during Red Line diversion as part of the Track Improvement Program.

- SGR initiative to remove all rapid transit slow zones.
- Funds allocated to Longfellow's viaduct rehabilitation, a new Commuter Rail maintenance facility in Billerica, and track and signal upgrades on the Green Line's Central Tunnel were resequenced to support the near-term needs of the Track Improvement Program.
 To stay on timelines, these projects will need to be refunded at the appropriate time in the future.



New Red Line vehicle providing service to riders at Park Station.

- Replacement of the aging Red and Orange Line fleets. The new vehicles are 4x more reliable.
- New funding available in FY25-29 CIP and funding repurposed from Arborway Bus Facility design funding, Copley to Arlington Track Replacement, and other projects will support CRRC's contract "reset" for new fleet delivery by the end of 2027. Ongoing project activities will not be impacted.



Safety, Reliability, and Modernization

Significant funding, including FY24 Fair Share funding, is programmed to projects that will help bring our system into a State of Good Repair and modernize our assets. The FY25-29 CIP will bolster our track, power, structures, vehicles, and asset management programs; enhance ROW access to improve project delivery; and strengthen efforts to inspect, repair, and modernize facilities. Major initiatives include:





Existing 1930's North Station Draw 1 Bridge.

- Replacement of the deficient 1930's drawbridge that will ensure continuity of all service on the North Side of the Commuter Rail and Amtrak's Downeaster.
- The project will also provide new tracks to improve on-time performance and additional arrival/departure capacity for the North Station Terminal.





Rendering of the future Type 10 Green Line light rail vehicle.

- Replacement of the aging Type 7 and Type 8 Green Line fleets with modernized vehicles.
- The new fleet will feature increased capacity, upgraded comms systems, improved accessibility, and the latest generation of crash-safety technology, prioritizing safety and reliability.



Accessibility

The FY25-29 CIP includes funding for improved accessibility across the system through upgrades to passenger facilities, vehicles, and wayfinding, continuing to work toward the goal of providing equitable access to all riders. Specific upgrades include, but are not limited to:



Upgraded accessible grade crossing on the Green Line's C Branch.

The MBTA is proposing to fully fund, through construction, major accessibility improvements at:

- Waban, Beaconsfield, Elliott, Chestnut Hill, Newton Highlands, and Symphony Green Line Stations.
- Priority bus stops in accordance with the Plan for Accessible Transit Infrastructure (PATI).



Rider on a wheeled mobility device accessing a ferry vessel.

The CIP includes funding for:

- Construction of accessibility upgrades at Winchester Center, Natick Center, and North Wilmington Commuter Rail Stations.
- Design activities to capitalize on potential federal funding for Commuter Rail Stations in Newton and other key locations.
- Infrastructure and accessibility improvements to our ferry system.



Sustainability and Resilience

Sustainability and Resilience initiatives in the CIP support the Commonwealth and MBTA's climate and mobility goals and increase the sustainability and resilience of our transit system. New and current funding in the CIP includes vulnerability assessments, adaptation planning, and decarbonization actions tied to our lighting and heating systems, as well as our revenue vehicles:



Flood plank deployment for flood mitigation at Aquarium Station.

- The CIP includes new funding for:
- A sustainability assessment across our modes and assets to identify actions items and a critical path for a sustainable and resilient transit system.
- This funding will help support the climate action work to be developed by our new Climate Policy and Planning Office.



Non-revenue electric fleet at our Cabot maintenance facility.

- The CIP includes funding for:
- Electric charging stations at our maintenance and parking facilities to support non-revenue electric vehicles.
- Continued design and procurement of decarbonized revenue vehicle fleets and supporting infrastructure.



Equity, Diversity, and Employee Morale

Projects in the CIP target locations with a high proportion of riders that are low income, protected on the basis of race and ethnicity, low vehicle households, older adults, and riders with disabilities. Investments also focus on our frontline workers. CIP projects help support:



Commuter Rail temporary platform at Lynn to continue supporting service on the EJ Corridor.

The CIP includes funding for:

- Design efforts to support decarbonized rail service on the EJ Corridor as well as construction of Rail Modernization early actions for increased service frequency via Chelsea and Lynn.
- Design of accessibility and circulation improvements at Nubian Square Bus Station.¹



Maintenance-of-way crew performing work at our ROW.

The CIP includes funding for:

- Improved facilities on the Commuter Rail, Rapid Transit, and Bus systems to prioritize and promote the safety of our frontline workers.
- New facilities on the ROW and procurement of new equipment to support our maintenance-of-way crews.



Equity, Diversity, and Employee Morale

Per our Strategic Plan, CIP investments seek to promote equity and diversity by investing in the infrastructure necessary to support our diverse ridership and workforce:



Representing nearly 40% of our ridership, our bus initiatives support disadvantaged populations

• Funding to advance Bus Network Redesign, Transit Signal Priority, and electrified bus service benefitting Title VI and Environmental Justice communities in our service area, as well as providing service improvements to bus routes with a high proportion of low-income riders, low-vehicle households, and riders protected on the basis of race and ethnicity.



Investments to advance Rail Modernization enhance regional mobility and access to opportunity

• The CIP includes capital investments to support the delivery of electrified, all-day, bidirectional Regional Rail and high-frequency urban rail service on the Commuter Rail system, targeting equity priority areas such as the Fairmount Line and the Environmental Justice Corridor.



Accessibility is a key CIP investment objective to support older adults and people with disabilities

 Ranging from station improvements to new fleet with improved accessibility features, the MBTA remains committed to advancing towards a fully accessible and equitable transit system across our modes.



Systemwide investments support dependable, frequent, and accessible service

• Improvements to our maintenance facilities and field facilities; procurement of new equipment; and funds to perform critical maintenance to our assets (stations, elevators, track, power, among others) can improve riders' experience when riding the T.



Proposed FY25-29 CIP: Ridership and Investment Levels

Rapid Transit and Bus service concentrate the highest ridership

 Based on pre- and post-COVID average weekday unlinked trips or rides

Rapid Transit and Commuter Rail are the modes with the highest programmed amounts

· Followed by Bus

The Commuter Rail concentrates the highest investment per ride by mode, with Bus representing the lowest investment/rides ratio

Average weekday ridership (thousand rides)			FY25-29 Programmed Amount ¹ (\$ million)		Investment per Ride by Mode (Programmed \$ / Ride)	
Mode/Line	Oct-19	Oct-23	Mode/Line	FY25-29 Total	Mode/Line	Investment/rides ratio (Oct-23)
Rapid Transit²	745	383	Rapid Transit ²	\$3,481	Commuter Rail	\$22,134
Bus/Silver Line	409	320	Commuter Rail	\$2,174	Paratransit	\$15,151
Commuter Rail	121	98	Bus/Silver Line	\$1,192	Ferry	\$10,480
Paratransit	6	4	Paratransit	\$58	Rapid Transit	\$9,081
Ferry	5.9	5	Ferry	\$53	Bus/Silver Line	\$3,724

¹ In addition to the modes listed above, the CIP allocates investments to multimodal projects that can be equally attributed to more than one specific mode, and to systemwide projects that cannot be linked to one or more specific modes.



²Rapid Transit encompasses the Red, Orange, Blue, Green, and Mattapan Lines.

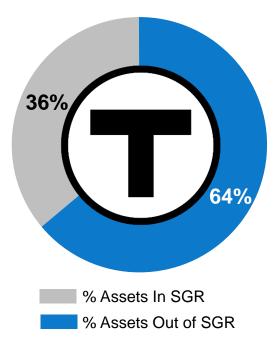
What challenges do we face to meet this vision?

Significant State of Good Repair Needs

The 2023 Capital
Needs Assessment
(CNAI) identified
baseline capital
needs to bring our
system into a State of
Good Repair (SGR).

While these needs are being addressed through our Reliability and Modernization programs, there's a significant amount of work to be done.





Declining CIP funding sources

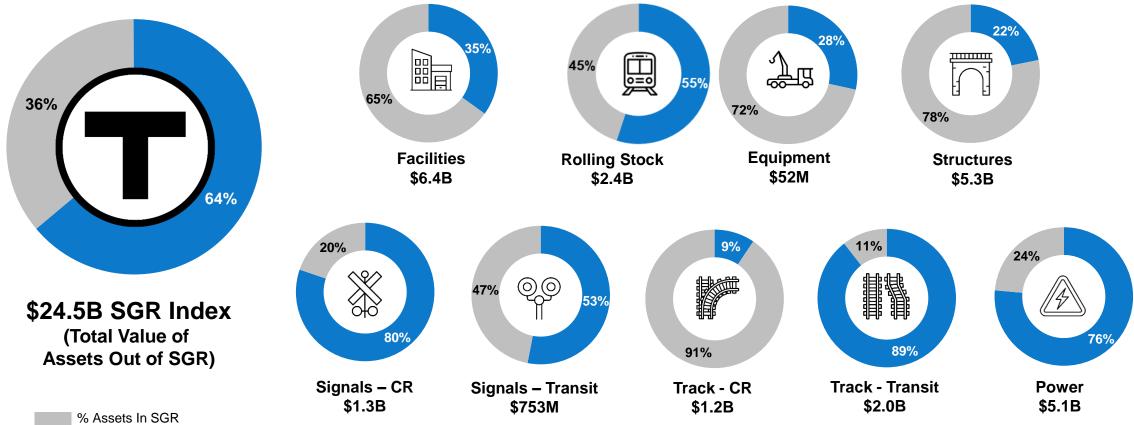
The FY25-29 CIP includes \$9.6B in programmed spend. Future capital plans may be roughly half that size (\$5.2M over 5-years) given declining funding sources tied to:

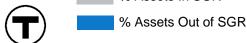
- Uncertainty on Federal funding levels beyond FY26,
- Absence of State funds as existing sources, which are tied to specific projects, continue to be drawn down, and,
- Projections that assume a relatively consistent level of MBTA revenue bond issuance in the out-years.



The T has significant State of Good Repair Needs

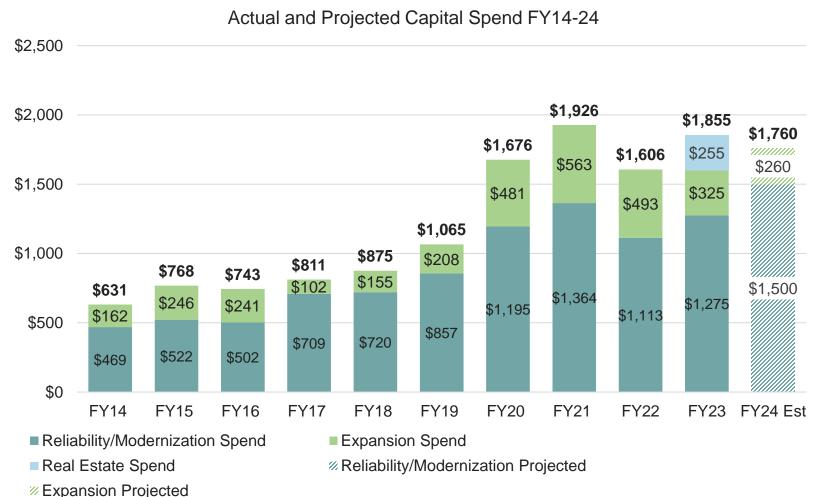
The MBTA's 2023 Capital Needs Assessment (CNAI) identified an estimated SGR Index, or baseline SGR need, of \$24.5B. Approximately 64% of the assets included in this analysis have been identified as being out of SGR*. The analysis relied on updated asset inventory data, condition ratings, and cost estimates (in 2022 dollars).





^{*}Assets are counted differently depending on the functional asset class, e.g., some track elements are counted by mileage while others use a per-unit or per-site count.

Historic Levels of Capital Spending Continue



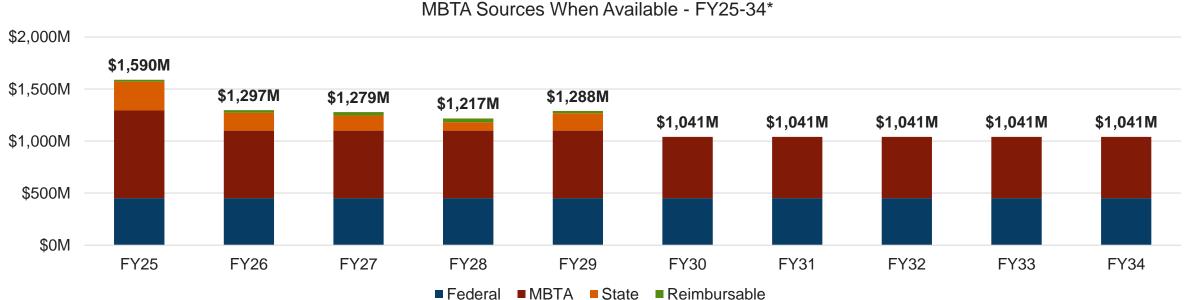
- The MBTA continues to sustain an unprecedented level of investment focused on the safety and reliability of our assets and the strategic expansion of the network.
- The FY25-29 CIP has programmed \$9.6B of programmed spend over the next five years, indicating that the MBTA anticipates this historic level of spend to continue.
- However, declining source availability in future years endangers the MBTA's ability to continue spending at this pace



Funding sources for capital projects are declining

The MBTA has increased capital spend significantly, growing from \$631M in FY14 to a record-high \$1.9B in FY22. However, in future CIPs, our funding sources are expected to decline:

- Uncertainty regarding Federal funding levels beyond FY26 (when BIL expires), and the continued draw-down of State sources tied to specific projects and initiatives, indicate future capital plans may be half the size of the \$9.6B FY25-29 CIP.
- The chart below does not account for potential Fair Share tax revenue, or other state sources, that could be made available in future years
- These projections account for a relatively flat annual MBTA revenue bond issuance





Unfunded or Partially Funded Project Requests

More capital projects are requested than can be fully or partially funded given available funding. This year, we were able to allocate \$843M in new funding. Unfunded requests and projects that were not fully funded totaled over \$11B across all CIP Programs.

CIP Program	Program Descriptions	Examples of Unfunded Project Requests	Total Unfunded ¹
Structures	Repairs, reconstructs, and replaces Commuter Rail and transit bridges, tunnels, culverts, and dams.	New funding for grade separations, and additional funding for retaining wall inspections.	\$101 M
Business and Operational Support	Investments in asset management, safety and security, communications, and other systems.	Additional funding for security upgrades at stations and ferry docks.	\$15 M
Guideway, Signal, and Power	Rehabilitates, replaces, and upgrades guideway, signal, and power assets across Commuter Rail, transit, and bus.	Signal and power sectionalization improvements on rapid transit lines, additional funding for systemwide track and ROW upgrades, and additional transit priority implementation work.	\$3,602 M
Maintenance and Administrative Facilities	Rehabilitates and upgrades maintenance and administrative facilities.	Increased funding for roofing and heating system upgrades and large-scale projects to upgrade and/or construct new facilities such as Arborway and Wellington Bus Maintenance Facilities.	\$2,370 M
Passenger Facilities	Rehabilitates and upgrades stations, stops, and parking facilities to improve accessibility and customer experience.	Additional accessibility projects such as upgrades at Nubian Square Station, improvements to station platforms, and large-scale station upgrades such as JFK/UMass on the Red Line.	\$1,762 M
Technology and Innovation	Investments in technology to enhance productivity, modernize the system, and improve the quality of service.	Communication system upgrades and major overhauls to in-station countdown clocks.	\$78 M
Vehicles	Rehabilitates and replaces the revenue and non-revenue fleet and equipment for reliable and safe operations.	Electrified bus fleet and non-revenue vehicle procurements as well as bus and rapid transit vehicle overhauls.	\$2,226 M
Expansion	Targeted expansion projects to increase system capacity or multimodal options.	Additional funding for system expansion projects such as Red-Blue Connector and Silver Line Extension.	Over \$1B ²

¹ Estimated costs for all projects requested are preliminary, subject to change, and should not be considered final.

² Given different stages of design and project development, ongoing expansion initiatives are estimates and do not represent a final amount.

