

**Massachusetts Bay  
Transportation Authority**

# **FY24-28 Capital Investment Plan Update**

Sources, initial FY24-28 program sizes and public engagement process preview

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MBTA Board of Directors

February 24, 2023

# Presentation Goals

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- Introduction to the FY24-28 Capital Investment Plan
- Capital Funding Sources and Initial Estimates
- Summary of CIP Requests Received
- Initial FY24-28 CIP Program Sizes
- Public Engagement Process and Next Steps



# Introduction to the FY24-28 CIP



# 5-Year MBTA Capital Investment Plan

## What is the Capital Investment Plan (CIP)?

- It is a short-term, financially constrained investment program that includes all our capital expenses over the next five years. It is a rolling plan, updated annually
- It funds the planning, design, construction, maintenance, and acquisition of capital assets across the transit network
- It includes unique, asset-based capital projects to modernize, expand, and increase the reliability of the transit network to support the Authority's priorities and goals

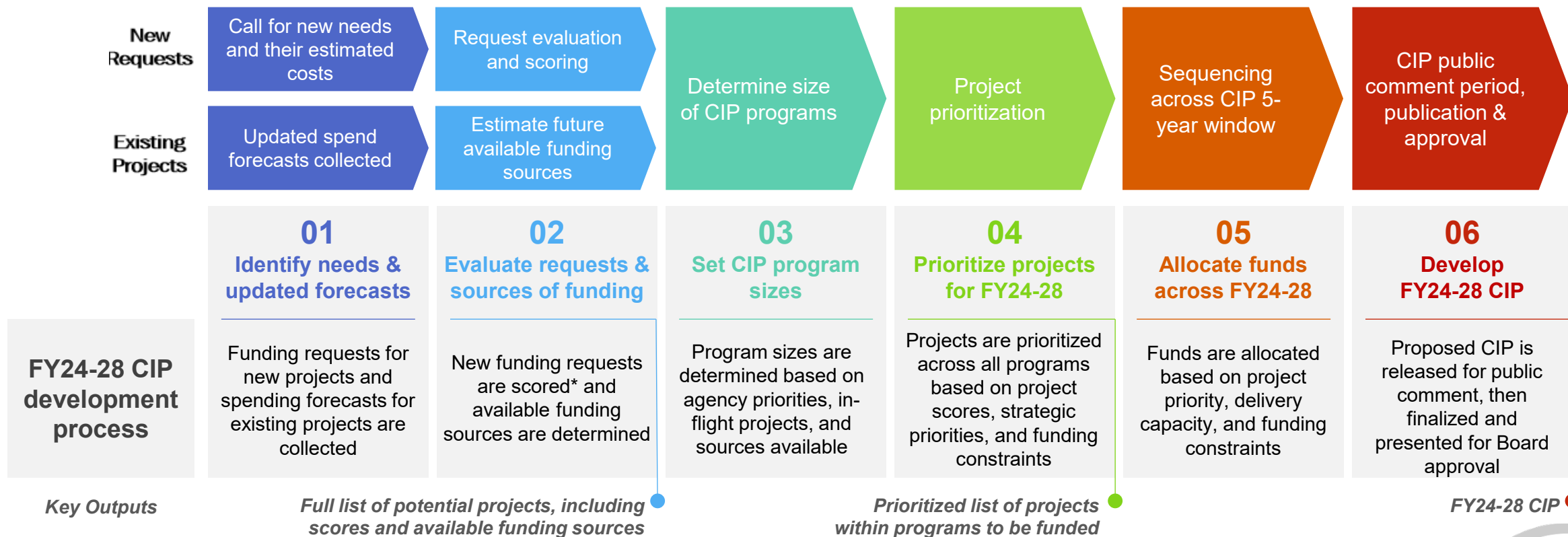
## What is a Capital Project?

- Capital projects are investments or activities related to acquiring, renewing, constructing, improving, or maintaining a capital asset, including project planning and design
- Capital assets are vehicles, facilities, units of equipment, or infrastructure elements with a useful life of more than one year and acquisition cost equal or greater than \$5,000



# CIP Development | 6 Key Steps

The key steps for developing the FY24-28 CIP



*\*Requests will be evaluated with an increased emphasis on system safety and security (asset conditions and inputs from Safety and Security departments), in addition to mobility, cost effectiveness, sustainability and resiliency, policy support, social equity and economic impact.*



# CIP Investment Programs

Asset class strategies are used to inform program sizing and investment priorities

## Reliability and Modernization Programs (7)

Improve the reliability of the system and modernize existing assets

*Focused on State of Good Repair and continued safety of riders and employees*



### 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)

Target investments to increase system capacity or multimodal options



### 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



# **FY24-28 CIP | Capital Funding Sources and Initial Estimates**



# CIP 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)
- Level of funding established in BIL and distributed to eligible UZAs

### Discretionary funds

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



## State funding

### Bonds

- General obligation bonds (bond cap) and special obligation/revenue bonds (Rail Enhancement Program) for specific projects such as:
  - 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

### Bonds

- 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

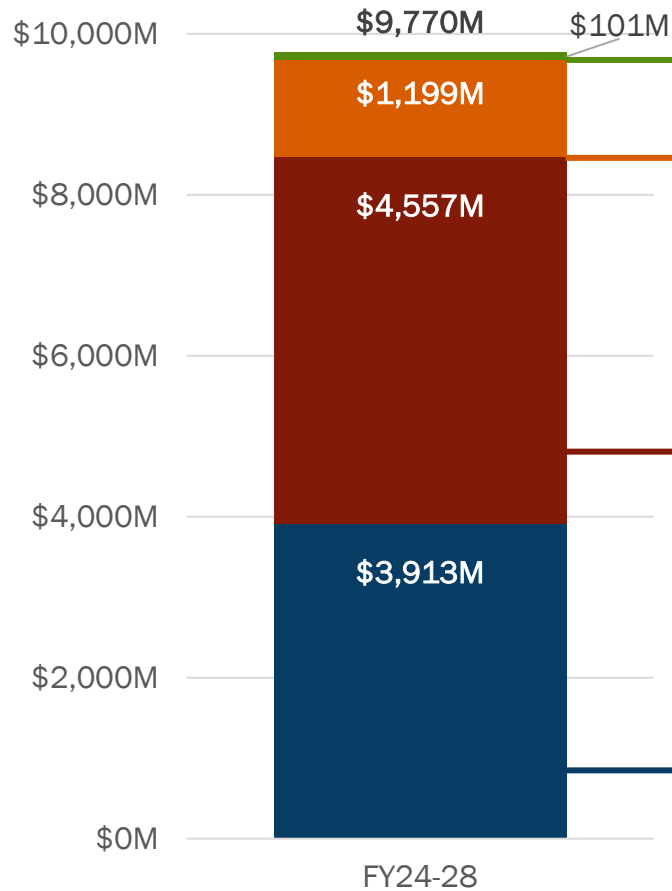
### Reimbursable

- Outside funds through partnerships and formal agreements



# FY24-28 CIP Funding Sources | Initial Estimate

## FY24-28 Sources



The FY24-28 CIP is currently estimated to reflect \$9.7B in programmed sources.

- This estimate will be updated to reflect changes to project schedules and additional sources received through state, federal, or reimbursable avenues prior to the publication of the proposed FY24-28 CIP.

**\$101M in Reimbursable funds** through partnerships and agreements

**\$1,199M in State funds**, including Bond Cap and Rail Enhancement Program (REP) special obligation bonds programmed for specific projects; also includes \$116M in funding from MassTRAC to support local match for additional federal funds the MBTA received under the Bipartisan Infrastructure Law (BIL)

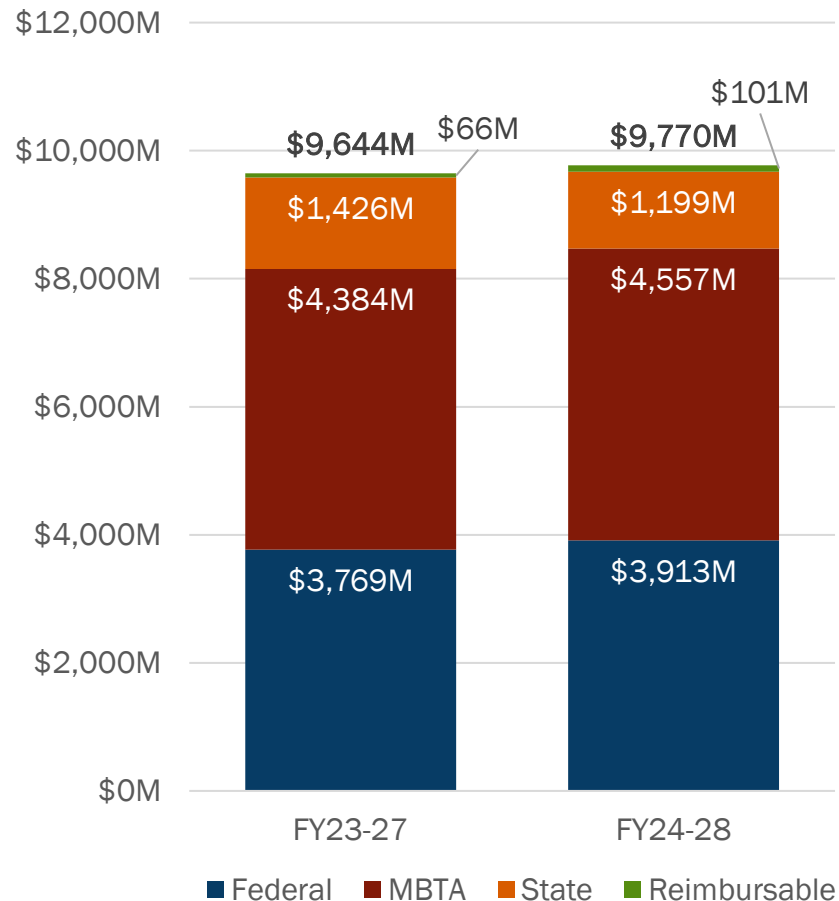
**\$4,557M in MBTA funds**, including \$590M per year in annual revenue bond issuance, operating budget transfers and existing RRIF/TIFIA loans

- \$590M per year in planned MBTA revenue bonds
- Existing USDOT TIFIA or RRIF loans that the MBTA has secured
- Annual operating transfer of \$60M per year assumed for all 5 years of the CIP

**\$3,913M in Federal funds** including federal formula funding levels included under the BIL, received discretionary grant awards, and federal funding for GLX

# FY24-28 CIP Funding Sources | Initial Estimate

FY23-27 CIP Programmed Amount and Anticipated FY24-28 Sources Available



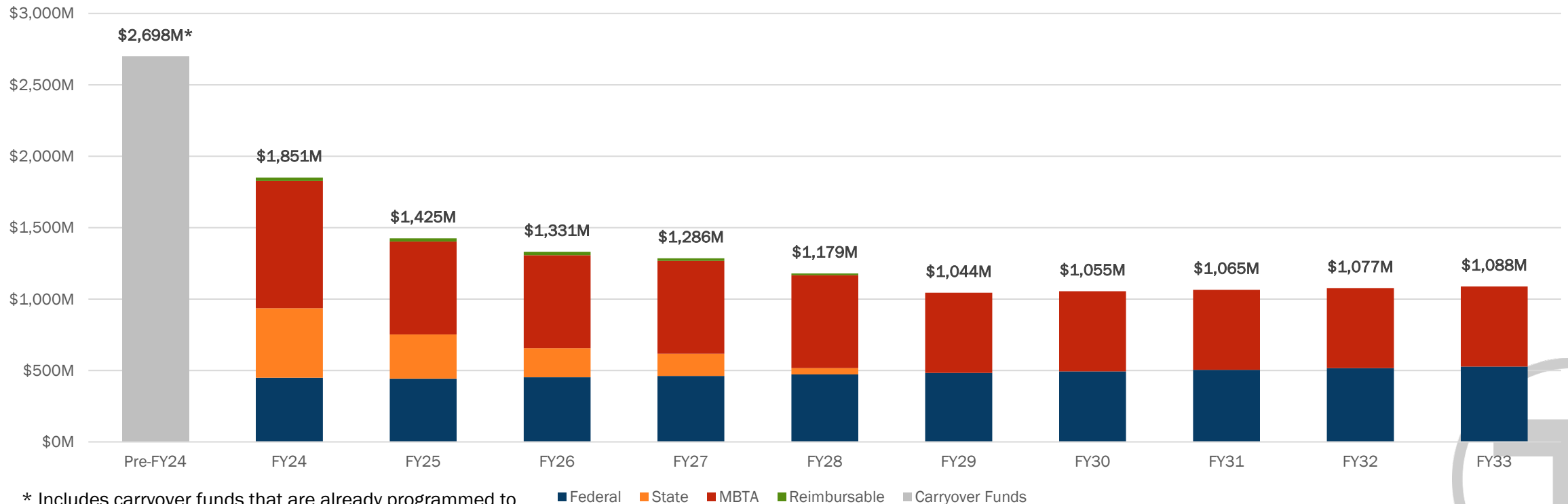
The FY24-28 CIP is anticipated to be slightly larger than the FY23-27 CIP in terms of programmed funding, driven by the following factors:

- **Federal** funds increased slightly compared to FY23-27 as the draw-down of federal funds for GLX and other initiatives was offset by a significant increase in discretionary grant awards
- **MBTA** sources have advanced from the FY23-27 as the MBTA is assuming \$590M annual bond issuance for the full FY24-28 CIP window
- **State** funds are tied to specific project cashflows (such as GLX and South Coast Rail), so overall sources continue to decline as these projects approach completion

Source	FY23-27	FY24-28
Federal	39%	40%
MBTA	45%	47%
State	15%	12%
Reimbursable	1%	1%
Total	100%	100%

# Capital Source Assumptions | 10 Year Outlook

- Out-year source assumptions reflect a continued downward trend driven by an absence of state funds (as existing sources, which are tied to specific projects, primarily SCR and GLX, are expected to wrap up spending by FY28), and a flat level of MBTA revenue bond issuance (\$500 annually from FY29 on).
- While the MBTA's FY24-28 CIP is expected to include roughly \$9.7B in sources, without additional sources, future 5-year capital plans may be roughly half this size.



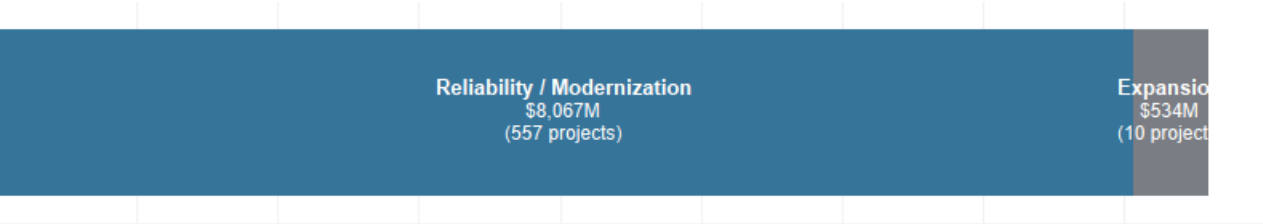
# **FY24-28 CIP | Review of Existing Projects and CIP Requests Received**



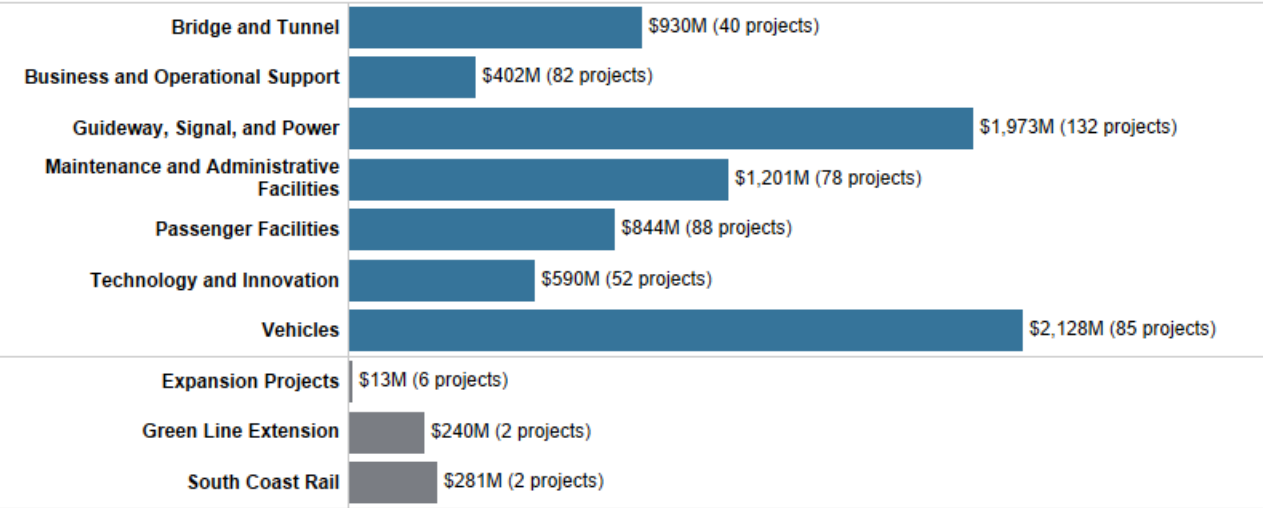
# Preview | Existing CIP Projects

FY24-28 Programmed Spend	Existing Projects in the CIP	Executing Departments
\$8,601M	567	28

FY24-28 Programmed Spend by CIP Priority



FY24-28 Programmed Spend by CIP Program

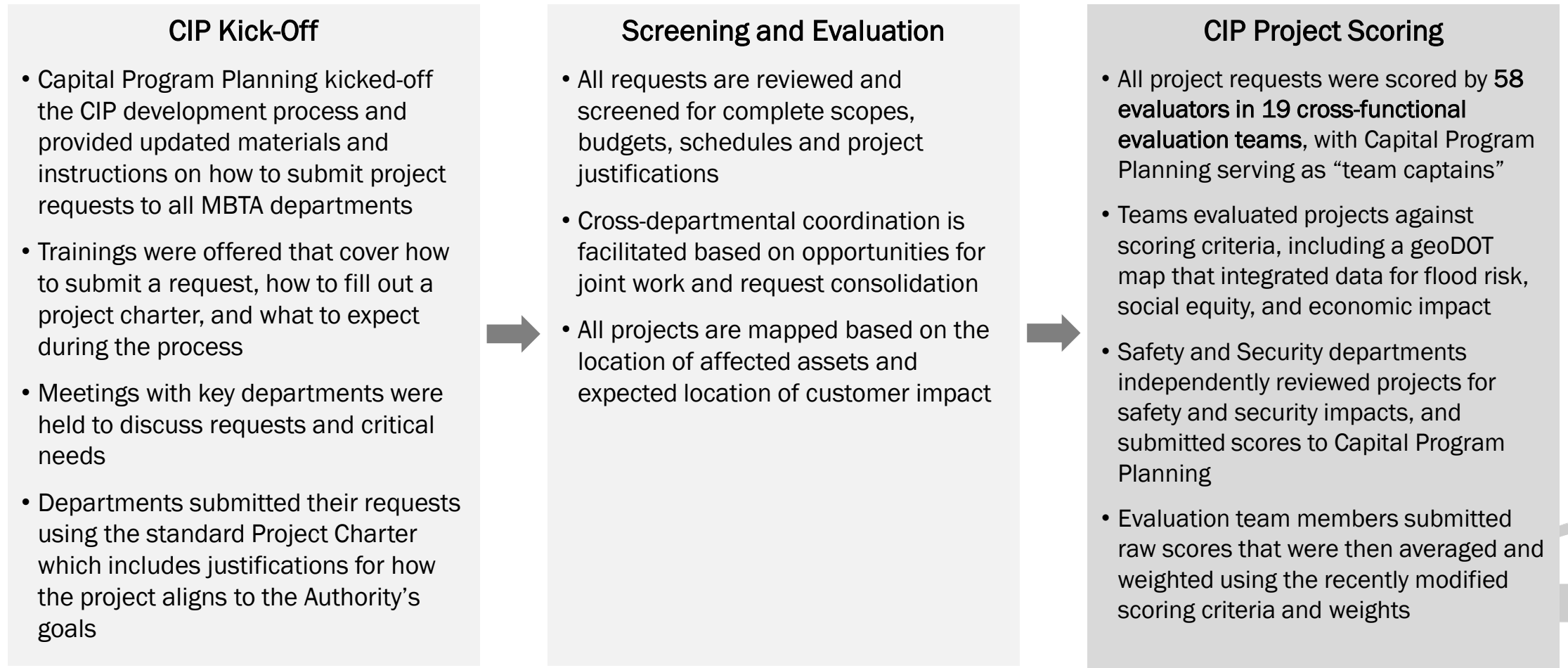


Reliability and Modernization Programs: Top 3 Projects by FY24-28 Programmed Spend

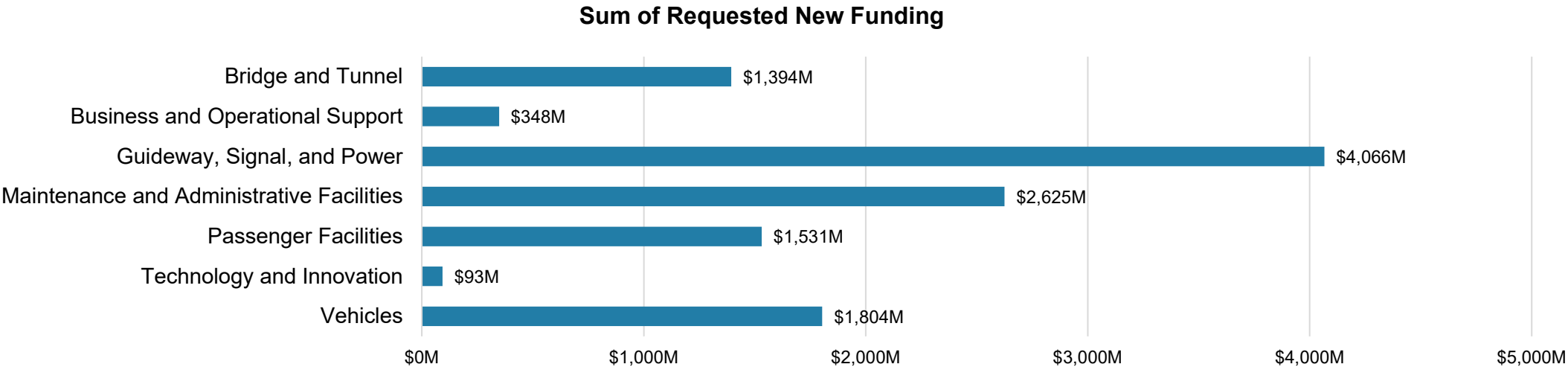
CIP Program	Project	FY24-28 Programmed Spend	Current Authorized Budget
Bridge and Tunnel	North Station Draw 1 Bridge Replacement (P0018)	\$353M	\$574M
	Longfellow Approach (P0551)	\$206M	\$210M
	Systemwide Tunnel Flood Mitigation Program (P0912)	\$50M	\$143M
	All Others	\$322M	\$1,083M
Business and Operational Support	State Match - BIL Support (P1166)	\$116M	\$145M
	Red Line - PM/CM Professional Services (P1012r)	\$25M	\$29M
	Electrical Safety - Incident Energy Analysis and System Upgrades (P0932)	\$16M	\$16M
	All Others	\$245M	\$589M
Guideway, Signal, and Power	Signal Program - Red/Orange Line (P0285)	\$176M	\$289M
	B Branch Accessibility & Capacity Improvements (P0924)	\$176M	\$221M
	Green Line Train Protection (P0370)	\$147M	\$213M
	All Others	\$1,475M	\$3,937M
Maintenance and Administrative Facilities	Quincy Bus Facility Modernization (P0671a)	\$329M	\$402M
	Future Regional Rail Layover Planning (P0952)	\$169M	\$170M
	Codman Yard Expansion and Improvements (P0679)	\$108M	\$117M
	All Others	\$595M	\$1,154M
Passenger Facilities	Ruggles Station Improvements Phase 2 (P0856)	\$93M	\$99M
	Symphony Station Improvements (P0168)	\$78M	\$91M
	Downtown Crossing Vertical Transportation Improvements Phase 2 (P0074)	\$71M	\$78M
	All Others	\$602M	\$1,759M
Technology and Innovation	Fare Transformation (P0265)	\$402M	\$792M
	Systemwide Radio (P0301)	\$127M	\$145M
	ACE Network (P0946)	\$12M	\$15M
	All Others	\$49M	\$176M
Vehicles	Red / Orange Line Vehicles (P0362)	\$553M	\$1,073M
	Green Line Type 10 Vehicle Replacement Program (P0369)	\$457M	\$1,000M
	Procurement of 40ft Enhanced Electric Hybrid Buses (P0618)	\$267M	\$349M
	All Others	\$850M	\$2,950M

# Initial Screening, Evaluation, and Scoring of Requests

- The CIP development process includes a robust request submission, evaluation and scoring process, as detailed below:



# Reliability and Modernization | Requests Received



CIP Priority	CIP Program	Number of Requests	Requested New Funding	Percentage of Total New Requests
Reliability and Modernization	Bridge and Tunnel	9	\$1,394M	12%
	Business and Operational Support	20	\$348M	12%
	Guideway, Signal, and Power*	47	\$4,066M	34%
	Maintenance and Administrative Facilities	45	\$2,625M	22%
	Passenger Facilities	40	\$1,531M	13%
	Vehicles	20	\$1,803M	15%
	Technology and Innovation	19	\$93M	1%
	Total	200	\$11,860M	100%

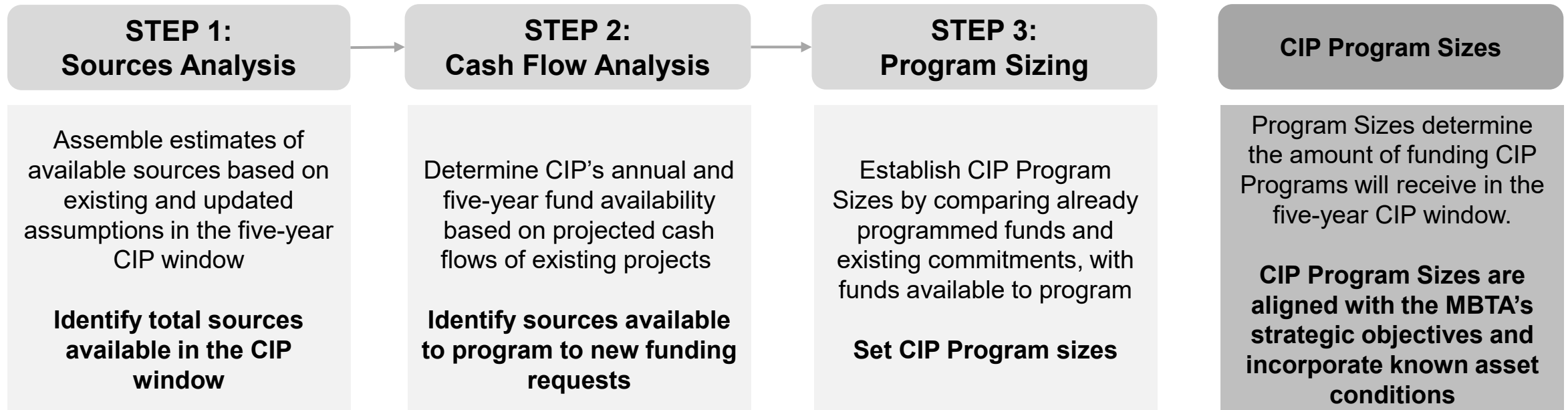


# FY24-28 CIP | Initial Program Sizes



# What is CIP Program Sizing?

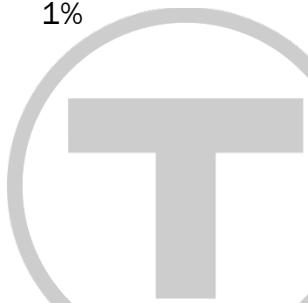
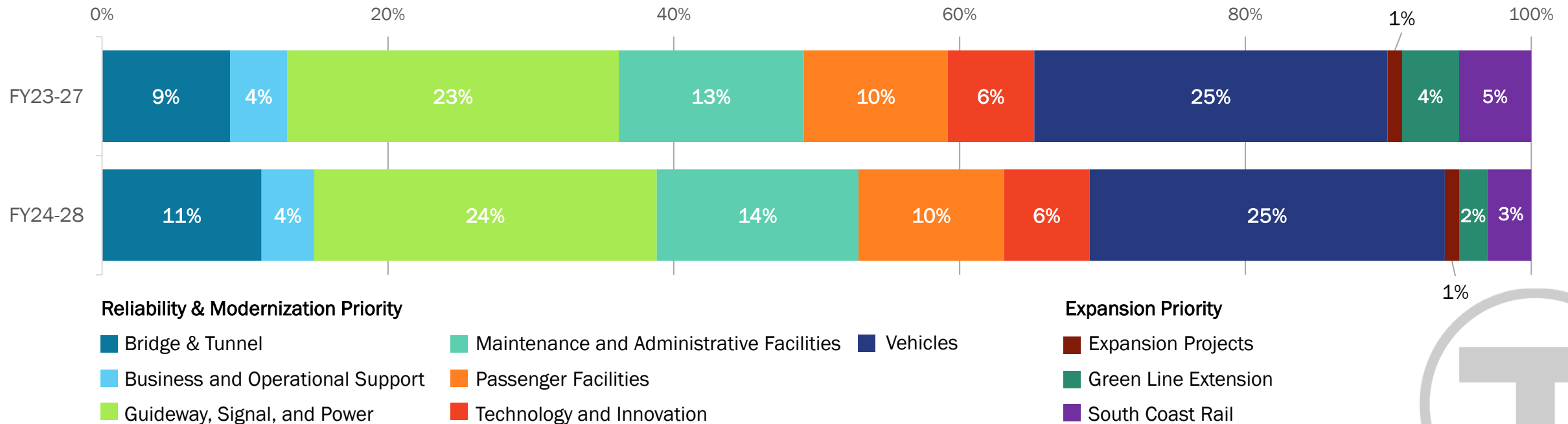
- Program sizing allows the MBTA to set clear priorities for investment at the CIP program level
- Initial CIP program sizes are determined by analyzing and comparing available sources and current cash flow projections for in-flight projects, and are based on sources available and agency priorities
- Consistent with previous years, the request for additional funding for existing and new projects far exceeds available sources and agency capacity



# FY24-28 CIP | Initial Program Sizes

- The following initial program sizes have been set, based on current estimates of sources available to program, and reflect investment levels that are in proportion to the FY23-27 CIP
- This demonstrates the agency's continued commitment to prioritizing investments in the system's guideway, signal and power and vehicle assets
- Expansion programs are currently held to existing project budgets

FY23-28 CIP Program Sizes as a Percentage of the Total CIP Budget



# Public Engagement Process and Next Steps



# Public Engagement Process

- Similar to last year, the MBTA will conduct a public engagement process focused on the Authority's Proposed FY24-28 CIP.
- Engagement for the FY24-28 CIP will follow the MBTA's Public Engagement Plan and will ensure access and accommodations so all may participate.

## **"Get to Know the CIP" Campaign** Early to Late March

- Updated CIP landing page on [mbta.com](https://mbta.com/cip) providing an overview of the program and the annual CIP development cycle
- Public outreach via social media and station screens highlighting key ongoing investments and directing members of the public to learn more on [mbta.com/cip](https://mbta.com/cip)
- Emphasis on explaining the CIP process and its relevance to a variety of stakeholders and encouraging turnout for public comment period

## **Draft CIP Release for Public Comment** Late March to Late April (30-day public comment period)

- After the Board meeting on March 23, the draft CIP will be released on [mbta.com/cip](https://mbta.com/cip) and a 30-day public comment period will begin
- Public comments will be received via an online form, letter, or emails
- MBTA staff will also host three public meetings (one in person and two remote), to provide an overview of the draft CIP and key investments
- Participation will be encouraged via social media, station screens, flyers, and community stakeholder networks

## **Final FY24-28 CIP Release** May (after final Board approval)

- The CIP will be further refined as necessary, finalized and submitted for Board approval in May
- Release of the final FY24-28 CIP on [mbta.com/cip](https://mbta.com/cip)
- Major themes from public comment period will be documented and general responses will be provided

# Key Milestones for CIP Development

*\*\*The following key milestones will be updated to incorporate the published MBTA Board schedule*

September

- CIP kick-off, CIP information sessions held with MBTA departments to detail the process

October

- Project proposals due via CIP intake process (October 15)

November

- Review of CIP requests in advance of scoring
- Develop initial estimate of capital funding sources using the outcome of the Q2 cashflow exercise

December

- CIP requests evaluated and scored (using PSAC criteria)
- Program sizing activities begin using asset condition report to help set priorities

January

- Prioritization of project proposals, based on scoring and evaluation
- Refine and finalize CIP public engagement approach with MBTA Community Outreach

February

- Develop initial project list – combine existing and new projects
- Refine sources and sequencing for draft project list

March

- Release Proposed FY24-28 MBTA-only CIP
- Conduct public engagement process to collect feedback on the draft plan

April

- Incorporate any CIP changes in response to public comments; submit draft project list to MassDOT
- Release 5-year TIP to the Boston Metropolitan Planning Organization (MPO)

May

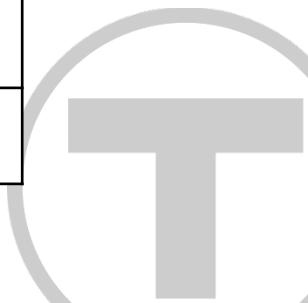
- Finalize MBTA CIP, vote to approve and transmit to MassDOT
- MassDOT Board vote to release draft CIP and engage public through multiple avenues

June

- MassDOT Board vote to approve final MassDOT-wide CIP

# Capital Investment Plan | Board Touchpoints

	Proposed MBTA Board Touch Points and Topics
OCTOBER	Finance and Audit Subcommittee Meeting: Introduction to the Safety Lens
NOVEMBER	Finance and Audit Subcommittee Meeting: N/A MBTA Full Board: N/A
DECEMBER	Finance and Audit Subcommittee Meeting: Introduction to the FY24-28 CIP: Update on scoring and a Federal grant update. Do we want to review asset management performance measures? MBTA Full Board: N/A
JANUARY	Finance and Audit Subcommittee Meeting: N/A MBTA Full Board (27 <sup>th</sup> ): N/A
FEBRUARY	Finance and Audit Subcommittee Meeting: CIP Update: Sources, initial FY24-28 program sizes and public engagement process preview MBTA Full Board: CIP Update: Sources, initial FY24-28 program sizes and public engagement process preview
MARCH	Finance and Audit Subcommittee Meeting: Present draft FY24-28 CIP and release for public comment MBTA Full Board: Present the draft FY23-27 CIP and release for public comment
APRIL	Finance and Audit Subcommittee Meeting: N/A MBTA Full Board: N/A
MAY	Finance and Audit Subcommittee Meeting: Present the final FY24-28 CIP and vote for approval MBTA Full Board: Present the final FY24-28 CIP and vote for approval
JUNE	Finance and Audit Subcommittee Meeting: N/A MBTA Full Board: N/A



# Appendix



# Capital Sources | Characteristics

Funding Type	Funding Source	Limited to Specific Projects	Assumptions that Drive Available Amount Per Year	Funding Source Behavior: Available versus Programmed
Federal	Formula	Once obligated	Established in Federal legislation	Available in the Federal Fiscal Year they are appropriated to the MBTA, then programmed over subsequent years
	Discretionary	Yes	Aligns with awarded competitive funding grants	After award, programmed to align with project cashflows
State	Project-based	Yes	Aligns with specific project cashflows	Programmed to align with project cashflows
	TBB Funding for BIL Federal Match	Local match to Federally Funded Projects	Currently set at \$29 million per year in FY24-27	Programmed for each year the funds are made available and must be spent in the same fiscal year
MBTA	Bonds	No	Aligned with the MBTA's bonding capacity and coverage ratio. Currently set at \$590 million per year from FY24-28.	Funds are programmed in the year they are made available, but roll if not spent
	Loans (TIFIA and RRIF)	Yes		Aligned with project cashflows
	Operating Transfer	No	Based on committed operating budget transfers. Currently set at \$60 million annually.	Funds are programmed in the year they are made available, but roll if not spent
Reimbursable	Various	Yes	Based on agreements with outside entities	Programmed based on agreements and aligned with project cashflows

# Scoring Criteria and Weights

Scoring has been modified to place an increased emphasis on State of Good Repair, safety, and security, with these topics making up 50% of a project's total weighted score. Aspects related to climate mitigation and adaptation have been consolidated in an updated Sustainability and Resiliency criterion.

	Criteria	Description	Sub-criteria	Scoring Weights by Priority	
				Rel. / Mod.	Expansion
Safety-Related Criteria (50%)	State of Good Repair	The extent to which the project contributes a state of good repair on the transportation system and aligns with asset management goals	<ul style="list-style-type: none"> <li>Asset Condition (6 points)</li> <li>Impact to Other Assets (2 point)</li> <li>Operations Criticality (2 points)</li> </ul>	30%	N/A
	Safety and Security	The extent to which the project addresses documented or identified safety issues and hazards, and security vulnerabilities and risks	<ul style="list-style-type: none"> <li>Impact on System Safety (7 points)</li> <li>Impact on System Security (3 points)</li> </ul>	20%	N/A
	Mobility	The extent to which the project is intended to provide modal options efficiently and effectively for all users through benefits to reliability, accessibility, and other measures of service quality.	<ul style="list-style-type: none"> <li>Impact on Reliability (2 points)</li> <li>Impact on Accessibility (2 points)</li> <li>Impact on Customer Experience (2 points)</li> <li>Impact on Riders (4 points)</li> </ul>	10%	25%
	Cost Effectiveness	The extent to which the project impacts operating costs and revenues and maximizes the return on the public's investment.	<ul style="list-style-type: none"> <li>Impact on Operating Costs (5 points)</li> <li>Impact on Operating Revenues (5 points)</li> </ul>	10%	25%
Climate / Environment Criterion (10%)	Sustainability and Resiliency	The extent to which the project supports climate sustainability and resiliency, meets state goals of improving air quality and reducing greenhouse gases, and results in a reduction of pollution.	<ul style="list-style-type: none"> <li>Flood Risk (3 points)</li> <li>Severe Weather Resiliency (3 points)</li> <li>Air Quality and GHG Reduction (2 points)</li> <li>Reduce Pollution and/or Natural Resource Consumption (2 points)</li> </ul>	10%	10%
	Policy Support	The extent to which the project is aligned with MBTA policy priorities, including Focus 40.	<ul style="list-style-type: none"> <li>Alignment with Focus40 (5 points)</li> <li>Alignment with MBTA Strategic Planning Report (5 points)</li> </ul>	5%	10%
	Social Equity	The extent to which the project equitably distributes social, economic, and health benefits to residents and local businesses.	<ul style="list-style-type: none"> <li>Benefits to EJ and Title VI Communities (7 points)</li> <li>Additional Equity Benefits to Vulnerable Populations (3 points)</li> </ul>	10%	15%
	Economic Impact	The extent to which the project supports economic growth in the Commonwealth.	<ul style="list-style-type: none"> <li>Impact on Connectivity to Employment Centers (3 points)</li> <li>Impact on Corridors At or Near Capacity (3 points)</li> <li>Impact on Communities with Transit-Supportive Land Use (3 points)</li> <li>Impact on Housing Choice Communities (1 point)</li> </ul>	5%	15%