

# **Capital Investment Plan Update 2024-2028**

**MassDOT Board of Directors**

April 27, 2023

## CIP 2024-2028 Development

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### Agenda

#### CIP Process Recap

- Status update on CIP development activities

#### Programs

- Highlighted changes

#### Preliminary sources and uses for MassDOT

- Additional adjustments to sources and/or changes
- Proposed uses

### Appendix

## CIP Process Recap

- **Since last meeting:**
  - Reviewed and finalized programs and funding requests
    - CIP / STIP alignment underway and will influence final programs and draft project universe once federally funded projects are fully incorporated
    - CIP programs and prioritization has continued to focus on aligning with strategic priorities and performance targets and incorporates:
  - Reviewed and refined source assumptions
    - Initial bond cap targets provided by Executive Office for Administration and Finance (ANF) January 27
      - Final bond cap guidance provided by ANF on April 12
      - MassDOT pay-go capital projections updated, as necessary, to align with draft FY24 operating budget assumptions
  - Planning is underway for the CIP public meetings
- **Today:**
  - Need feedback on preliminary sources and uses
  - Feedback and discussion on proposed new programs

## MassDOT Board Touchpoints for CIP Development

MassDOT Board	
December	
January	
February	
March	CIP/strategic framework / CIP timeline /discussion on CIP programs, sizes / changes / preliminary estimated sources
April	Draft sources and uses; initial CIP project lists / MPOs release draft 5-year TIPs for 21-day public comment period
May	Draft CIP update including any updates to sources & uses / any significant new projects and/or changes from 2023-2027 CIP / MassDOT Board vote to release for public comment / STIP released for public comment
June	Final CIP update / public outreach analysis / equity analysis / MassDOT Board vote to approve CIP / Final 5-year STIP submitted to FTA, FHWA, DEP & EPA at end of June

## Funding Assumptions and Considerations

- **State Bond Cap**

- Bond cap sources based on estimates provided by the Executive Office of Administration and Finance (ANF) and are subject to change pending finalization of the Commonwealth's capital plan
  - ANF has provided MassDOT with updated guidance on available bond cap to support our transportation investments
  - MassDOT will receive an additional \$365.5 million over 2024-2028 for a total of \$5.652 billion in state bond cap over the five-year period

- **Federal Funds**

- STIP<sup>1</sup> and CIP will continue to reflect the federal funding levels authorized in the Bipartisan Infrastructure Law (BIL)
- The 2024-2028 STIP will incorporate the Carbon Reduction, PROTECT<sup>2</sup> and National Electric Vehicle Infrastructure (NEVI) federal formula funds provided to MassDOT
  - FHWA approved MassDOT's National Electric Vehicle Charging Infrastructure (NEVI) plan in September 2022

- **Pay-Go Capital Funds - MassDOT**

- Availability and amount of pay-go capital funds to address the long-term capital needs of the toll facilities depend on operating budget assumptions and toll revenue projections
- Assumptions will be adjusted if necessary to align with the final FY 24 operating budget

<sup>1</sup> State Transportation Improvement Program (STIP)

<sup>2</sup> Promoting Resilient Operations for a Transformative, Efficient, and Cost-Saving Transportation Program (PROTECT)

## CIP Federal Sources

- **Federal Sources included:**

- The 2024-2028 STIP will incorporate the Carbon Reduction (\$93.7 million), PROTECT<sup>1</sup> (\$106.5 million) and National Electric Vehicle Infrastructure (\$63.5 million) federal formula funds provided to MassDOT under BIL
- Carbon Reduction funds are likely to be programmed under CIP programs to support:
  - Investments that promote multimodal projects such as Complete Streets and Safe Routes to School infrastructure
  - Transit infrastructure (e.g., zero emission bus fleets and modernization projects for the MBTA/RTAs)
  - National Electric Vehicle Infrastructure (NEVI) plan implementation
- MassDOT received an additional \$44.1 million of Bridge Replacement and Rehabilitation funding in FFY 23 which will be incorporated into the existing 2023-2027 STIP and carried in the 2024-2028 STIP and CIP
- MassDOT Transit received increased funding under BIL which is reflected in the 2024-2028 CIP
  - \$9.5 million in Section 5310<sup>2</sup> FTA formula funding for the Mobility Assistance Program (MAP)
  - \$20 million in Section 5339<sup>3</sup> FTA formula funding for RTA Vehicle Replacement for statewide bus and bus facilities projects

<sup>1</sup> Promoting Resilient operations for a Transformative, Efficient, Cost-Saving Transportation Program (PROTECT)

<sup>2</sup> Section 5310 - Enhanced Mobility of Seniors & Individuals with Disabilities

<sup>3</sup> Section 5339 – Buses and Bus Facilities

## MassDOT Pay-go Capital Funding Comparison (a/o April 2023)

Facility / Actuals & Projections		2023-2027	2024-2028
<b>Metropolitan Highway System</b>	Revenues	1,849.6	1,989.4
	Expenses	662.0	692.6
	Debt Service	710	718.3
	<b>Available for Capital</b>	<b>\$477.5</b>	<b>\$578.5</b>
	Reserves	\$200.0	\$200.0
<b>Western Turnpike</b>	Revenues	\$973.6	\$1,061.9
	Expenses	\$468.3	478.0
	<b>Available for Capital</b>	<b>\$505.4</b>	<b>\$583.9</b>
	Reserves	\$130.0	\$130.0
<b>Tobin Bridge</b>	Revenues	229.3	268.1
	Expenses	75.9	76.3
	<b>Available for Capital</b>	<b>\$153.4</b>	<b>188.2</b>
	Reserves	\$118.0	\$100.0
<b>Total Available for Pay-Go Capital</b>	<b>Total Available for Capital</b>	<b>\$1,136.3</b>	<b>\$1,317.0</b>
	Total Reserves	\$448.0	\$430.0

# CIP Update: Uses

April 27, 2023



## Comparison of 2023-2027 vs estimate for 2024-2028<sup>1</sup> (\$ millions)

Division	2023-2027	2024-2028 <sup>2</sup>
Aeronautics	333.6	480.1
Highway <sup>3</sup>	9,913.9	10,380.6
Highway Bicycle/Pedestrian Modal Implementation	60.0	60.0
Information Technology	122.6	111.0
MassDOT Rail	370.1	\$357.2
Registry of Motor Vehicles <sup>4</sup>	18.2	16.8
MassDOT Transit	238.3	306.6
Chapter 90	1,000.0	1,000.0
Planning	1,004.0	654.7
Municipal Programs <sup>5</sup>	386.0	359.5
<b>Total MassDOT Base</b>	<b>\$13,447.2</b>	<b>13,726.2</b>
MBTA <sup>6</sup>	1,425.9	837.6
<b>MassDOT + MBTA (Base)<sup>2</sup></b>	<b>\$14,873.1</b>	<b>14,563.8</b>
Approved Additional Funding <sup>7</sup>	N/A	365.5
<b>MassDOT + MBTA + Additional Funding</b>	<b>\$14,873.1</b>	<b>\$14,929.6</b>

<sup>1</sup> Totals may not add due to rounding; does not include additional funding and spending under consideration by ANF but does include BIL funding

<sup>2</sup> 2024-2028 estimates are preliminary and will be further updated once project lists finalized

<sup>3</sup> Highway 2024-2028 spending is preliminary; to be further updated as 2024-2028 STIP is finalized and incorporated in the CIP

<sup>4</sup> Reflects anticipated spending for baseline RMV capital spending

<sup>5</sup> Includes Complete Streets, Municipal Bridge, Municipal Pavement, Local Bottleneck Reduction, Shared Streets and Spaces and Municipal / RTA EV Fleets

<sup>6</sup> Reflects Commonwealth's commitment (REP funds) for SCR, GLX and other MBTA expansion projects

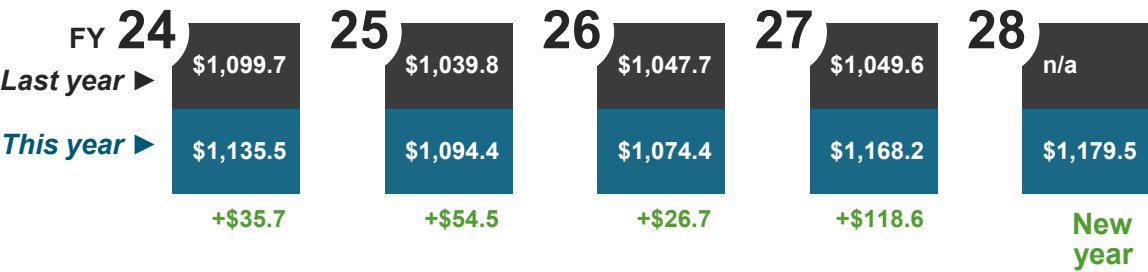
<sup>7</sup> Additional funding requests under consideration by ANF and will be updated as the Commonwealth finalizes its capital plan

# MassDOT CIP Funding Sources: Base Bond Cap Comparison (2024-2028 vs 2023-2027)

## Changes from year to year

- Bond Cap
  - ANF has provided final estimates for our baseline bond cap; Commonwealth capital planning is still under development
  - MassDOT has been allocated an additional \$365.5 million over our baseline bond cap totals provided in January.
  - Additional funding was provided to support:
    - Commonwealth’s commitment for the Cape Cod Bridges)
    - Highway program development/management costs related to delivery of the federal-aid program
    - Additional state match funds for MassDOT Transit/RTAs to support the increased FTA formula funding programmed in this CIP

## Year to year comparison – MassDOT Preliminary Base Bond Cap



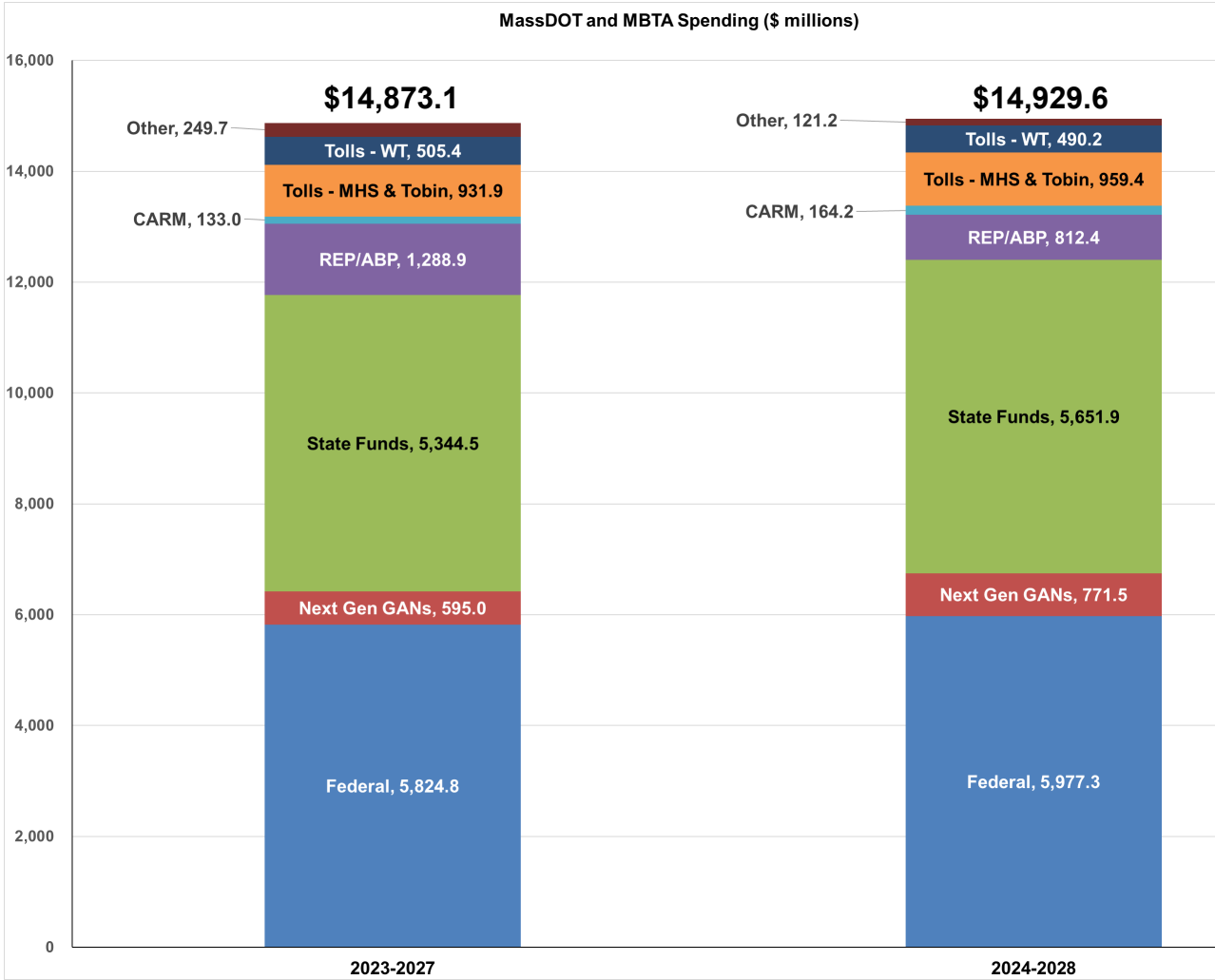
## Overall impacts on 2024-2028 update

- Amounts in 2024–2028 are 6.9% higher (\$365.5 million) than last year’s bond cap allotted to MassDOT
- SCR funding assumed to be REP funding; no state bond cap funding provided
- \$200 million/year included for Chapter 90 (Governor filed legislation to fund Chapter 90 at \$200 million for both FY 24 and FY 25)
- \$25 million/year (\$125 million total) estimated in additional state bond cap (over 5 years) will support federal aid highway program development/management costs
- \$22.4 million over 5 years provided to match the increase in FTA formula funding programmed by MassDOT and the RTAs for 2024-2028
- \$214.8 million has been provided to support the Commonwealth’s commitment to replacement of the Cape Cod Bridges project

## FY2024-2028 impacts on sources

- Bond Cap to support new programs and other Divisional requests in addition to those listed above was not allocated to MassDOT
- Commonwealth providing REP funds for MBTA South Coast Rail program; no bond cap allotted

# MassDOT & MBTA<sup>1</sup> Spending: 2024-2028 (\$ millions)



## Spending Highlights

**Bond Cap/State Funds:** Funds the state match for the federal aid projects (Highway/Planning) and IT, Rail, Transit (match for FTA funds received by RTAs), state match for FAA grants, Chapter 90 and Municipal Programs **Federal:**

- FHWA reimbursements for projects underway and/or schedule to advertise in FY24-FY28
- Other federal funds includes FTA funds for MAP, BUILD grant for Rail (NECR project) and freight (FHWA/FRA) funds for East Deerfield Intermodal Facility

**GANs:** reflects spending anticipated for eligible projects; all projects are in the FY24-FY28 STIP

**Rail Enhancement Program/Accelerated Bridge Program (REP/ABP)** – State Special Obligation Bonds used to fund MBTA expansion projects as well as remainder of Highway’s ABP

### Operating:

- Spending for projects underway or scheduled to start (includes Sumner Tunnel, lighting projects, Newton/Weston I-90/I-95, among others)
- Pay-go capital aligns with preliminary FY24 operating budget assumptions

**CARM:** spending on projects approved by FHWA

### Other:

- Spending on transportation improvements in Seaport District funded with HED cap, VW settlement funds and/or local matching funds (Aeronautics)

<sup>1</sup> MBTA **state** spending includes \$837.6 million in REP and Other Commonwealth funds for FY24-FY28



## Proposed CIP Public Engagement

**May 18<sup>th</sup> – June 9<sup>th</sup>:** Public Comment Period on the Capital Investment Plan Draft Document is open

- This is the public's opportunity to review and provide feedback on the CIP draft document.
- The CIP document will be posted online in both PDF and an interactive format, and there are several ways that the public can provide input:
  - By emailing us at [masscip@dot.state.ma.us](mailto:masscip@dot.state.ma.us)
  - By leaving a comment on the interactive [CIP online comment tool](#) (link will be live at the start of the comment period)
  - By attending a virtual public meeting about the CIP. More details and registration links can be found on our website at <https://www.mass.gov/cip>
  - By sending us a letter addressed to: MassDOT Office of Transportation Planning, attn: Manager of Capital Planning, 10 Park Plaza, Suite 4150, Boston, MA 02116

**June 9<sup>th</sup>:** Public Comment Period on the Capital Investment Plan Draft Document closes

**June 21<sup>st</sup>:** Presentation of comments/feedback, and discussion and approval of final CIP at MassDOT Board

## Next Steps: Discussion of Project Changes in 2024-2028

- Analysis underway of proposed projects for 2024-2028 to determine any significant changes to cost and/or schedule
- Analysis will be presented as part of discussion of proposed projects in May
  - We will identify the following:
    - For any projects \$15 million or greater in total cost, costs that have increased by 10% or more
    - Any changes in ad date by more than one year
    - Any projects that were programmed in the 2023-2027 STIP and 2023-2027 CIP and not included in the 2024-2028 CIP and 2024-2028 STIP

# CIP Update: Appendix

April 27, 2023

## CIP Proposed New Programs

Program	Description	Program Plan / Guidance	Measure / Project Selection	CIP spending assumptions
Highway / Resiliency Improvements	This proposed program will fund projects or project elements that focus on resilience planning and improvements to existing transportation assets and evacuation routes and address highway infrastructure that is vulnerable to extreme weather and sea-level rise. The PROTECT formula funds provided under BIL will fund investments under this program.	Bipartisan Infrastructure Law	<p><b>Measure</b> / Measures are in development: Number of modernized structures (bridges / culverts) and roadway segments where risks posed by extreme weather or climate-related vulnerability has been mitigated or eliminated</p> <p><b>Selection</b> / Project selections are based on addressing known issues; integrating resiliency improvements into existing projects; and identifying new projects based on forthcoming Climate Adaptation Vulnerability Assessment (CAVA) and Resiliency Improvement Plan (RIP)</p>	TBD
Highway / Safe Routes to School	This proposed program works to increase safe biking and walking among elementary, middle and high school students through two infrastructure grant programs – signs and lines and infrastructure improvements. SRTS projects were previously included as part of the Highway Roadway Reconstruction program in past CIPs. The federal funding for SRTS is usually TAP (Transportation Alternatives Program) or CMAQ (Congestion Mitigation and Air Quality).	Program guidance	<p><b>Measure</b> / Increase in walking and bicycle facilities at schools across Massachusetts</p> <p><b>Selection</b> / For the Infrastructure Grant Programs, MassDOT convenes a Project Selection Committee comprised of stakeholders from MassDOT's Office of Transportation Planning and Highway Division (including subject matter experts) to evaluate and select projects that align with SRTS priorities and ensure equitable distribution of investments.</p>	\$40 million in projected spending for FY24-FY28

CIP Proposed New Programs

Program	Description	Program Plan / Guidance	Measure / Project Selection	CIP spending assumptions
<b>Aeronautics</b> / Unmanned Aircraft Systems (UAS) Integration	This program will identify operational functions for the future of aviation in Massachusetts, classify the components of system development and address capital requirements for asset procurement. The platform will build new aviation capabilities and model programs to address new technologies supporting UAS and Advanced Air Mobility (AAM); facilitate adoption of drones across the Commonwealth in a safe, cost effective and secure manner for aviation and surface transportation; generate the knowledge and concepts necessary to inform operations, safety and certification standards and procedures.	Statewide Airport System Plan; Supports MassDOT Divisions Asset Management Plans	<b>Measure</b> / N/A <b>Selection</b> / N/A	\$31 million in projected spending for FY24-FY28; funding under consideration by ANF



## Bond Cap/State Funds Comparison for MassDOT and MBTA

(\$ millions)	FY 2023-2027 <sup>1</sup>	FY 2024-2028 <sup>1</sup>	FY 2024-2028 Final (4/12/23)
MassDOT	3,849.1	3,926.9	3,926.9
Chapter 90	1,000.0	1,000.0	1,000.0
MBTA / South Coast Rail	102.4	0.0	0.0
ATLAS	7.0	0.0	0.0
Municipal Programs <sup>2</sup>	386.0	359.5	359.5
<b>Subtotal Base Bond Cap</b>	<b>\$5,344.5</b>	<b>\$5,286.4</b>	<b>\$5,286.4</b>
<b>Additional State Funds Requested <sup>3</sup></b>			
BIL Support / Additional State Match (Highway/MassDOT Transit) <sup>4</sup>		147.9	147.4
Commonwealth Funding for Cape Bridges		214.8	218.1
Highway – Municipal Partnerships		40.0	0
Highway – Bridge Preservation		40.0	0
Highway - Equipment		29.5	0
MassDOT Rail & Transit – East-West Rail		13.8	0
MassDOT Rail & Transit – IRAP & PTC		59.0	0
MassDOT Rail & Transit – Transit/RTAs		50.5	0
IT and Enterprise Services		20.2	0
Aeronautics – UAS & Airport Administration Buildings		95.9	0
RMV – ATLAS		7.0	0
<b>Total Requested New State Funding</b>	<b>N/A</b>	<b>\$718.6</b>	<b>\$365.5</b>
<b>Total Bond Cap/State Funding<sup>1</sup></b>	<b>\$5,344.5</b>	<b>\$6,005.0</b>	<b>\$5,651.9</b>

<sup>1</sup>Totals may not add due to rounding

<sup>2</sup> Municipal programs include Complete Streets, Municipal Bridge, Municipal Pavement, Local Bottleneck Reduction, Shared Streets and Spaces, and Municipal / RTA EV Fleets

<sup>3</sup> Requested and final determination

<sup>4</sup> \$125 million for Highway Program Management/Development Support and \$22.4 million for state match for additional Federal Transit Administration formula grants

## CIP State Sources – Additional Funds Request; Final ANF Determination (4/12/23)

- Additional bond cap required as state match to support:
  - Highway program development/program management costs (\$125 million) related to delivery of the federal aid program requested from ANF and incremental match (\$22.4 million) for the RTAs to match increased federal transit formula grants - \$147.4 million in additional bond cap per ANF 4/12/23
- Funding to support the Commonwealth's commitment to replacement of the Cape Cod Bridges (bond cap - \$218.1 million)
- MassDOT has requested additional bond cap to fund strategic initiatives as well as address condition of transportation assets:
  - \$15.0 million for the MassDOT Rail – Industrial Rail Access Program (IRAP) to meet the legislative requirement in MassTRAC (not funded)
  - \$7.0 million for enhancements required to ATLAS to comply with new state and federal reporting requirements (not funded)
  - \$40 million for Municipal Partnerships to support design and technical assistance for municipalities to facilitate the development, funding and delivery of municipal projects (not funded)
  - \$40.0 million to support expanded investment in bridge preservation to increase preventative maintenance to reduce the need for bridge replacements (not funded)
  - \$29.5 million for Highway Equipment for procurement of light and heavy equipment, supplies and services for operations and highway maintenance statewide (not funded)
  - \$14.25 million for IT to replace key backbone systems/networks for Highway (Project Info) and an Enterprise Data Lake (not funded)
  - \$5.9 million for Property Services to address building infrastructure issues and life safety (not funded)
  - \$44.0 million to fund system design and fiber installation to support implementation of positive train control on the Knowledge Corridor in support of passenger service (not funded)
  - \$31.0 million for Aeronautics to support the Unmanned Aircraft Systems (UAS) Integration program (not funded)
  - \$64.9 million for Aeronautics Administration Building program to support construction of a new Airport Terminal Building and Air Traffic Control Tower at New Bedford Airport (not funded)
  - \$50.5 million for MassDOT Transit to support increased vehicle costs for MAP and the RTA Vehicle Fleet Upgrades and Facility and Vehicle Maintenance (not funded)

## MassDOT CIP Major Initiatives

Spending on major projects/programs reflected in this CIP update

- **Road and Bridge / Bicycle & Pedestrian Investments:**

- Andover-Lawrence – Bridge Rehabilitation, I-495 over Route 28
- Charlton-Oxford - Reconstruction of Route 20
- Newton-Weston - I-90/Route 128 Bridges/ramps – 7 bridges (5 replacements, 1 superstructure replacement, and 1 rehabilitation)
- Corridor Improvements on Route 79/Davol Street in Fall River
- Haverhill –Methuen – Bridge Replacement over the Merrimack River (I-495 NB and SB)
- Boston – Bridge Rehabilitation, Bowker Overpass over I-90, MBTA/CSX & Ipswich Streets and Ramps
- Belmont - Community Path (Belmont component of Massachusetts Central Rail Trail)
- Brockton-Abington – Pedestrian and Bicycle Improvements on Route 123
- Fitchburg-Leominster – Twin Cities Rail Trail

- **Tunnel investments:**

- Sumner Tunnel Rehabilitation (under construction)
- Boston – Tunnel Lighting Replacement on I-90 and I-93

- **Rail and Transit:**

- Track and Right of Way – Bridge and Culvert Repairs on the Connecticut River Line
- Modernization of the East Deerfield Intermodal Facility (state and federal funding)
- Vehicle replacement program (primarily buses both electric and hybrid) for the Regional Transit Authorities

- **Aeronautics:**

- Reconstruct Runways 6-24/Stub Taxiways and Airfield Lighting at Nantucket Memorial Airport
- Expand and Renovate Terminal Building (Phase 1) at Martha's Vineyard Airport

## MBTA CIP State-funded Initiatives

Spending on major state-funded initiatives reflected in this CIP update

- **Green Line Extension**
  - Total projected cost is approximately \$2.288 billion
  - Green Line Union Square and Medford Branches are open for service
- **South Coast Rail**
  - Total projected cost \$1 billion
  - Substantial completion on track for late 2023 / early 2024
- **Red Line/Orange Line Vehicles**
  - 78 Orange Line cars have been delivered to Wellington car house; 12 Red Line cars have been delivered to Cabot car house
  - CRRC has focused production efforts to complete the Orange Line fleet with limited Red Line production
  - The MBTA will continue to aggressively manage CRRC under the terms of the contract to improve production output and drive continuous improvement to ensure safe and reliable vehicles are accepted for passenger service
- **Red Line/Orange Line Infrastructure Improvements**
  - Wellington Yard contractor – no issues
- **MBTA Expansion Projects**
  - Green Line Tracking – on track to be complete in FY 25
  - Energy Efficiency – anticipated completion by FY 25
- **MBTA BIL State Match for increased FTA funding**
  - MassTRAC authorized \$145 million in state match funds (FY 23–27)
  - MBTA is receiving \$29 million/year (\$116 million for FY 24–28) in state funds under the Rail Enhancement Program; funds are provided as special obligation bonds