

Draft CIP Update SFY 2021 Joint Boards presentation

May 11, 2020

A New Direction: One Year CIP for FY21

- Unrealistic to develop a 5-year plan at this time
- New construction safety rules: unclear what cost/productivity/ timeline impact will be
- New revenue realities
 - Tolls and other transportation revenues down sharply and difficult to project 5 years into the future
- Federal and State legislative uncertainty
 - Federal:
 - Surface Transportation Authorization expires 30 September
 - Additional infrastructure funding possible in next recovery program
 - State:
 - Uncertain timing and content of Transportation Bond Bill
 - Affects authorization for new and some existing programs
- For MassDOT/MBTA, this would have been the last year of rolling 5-year CIP
 - We will begin process of developing full 5-year plan later in 2020, when state and federal legislative/funding picture is clearer



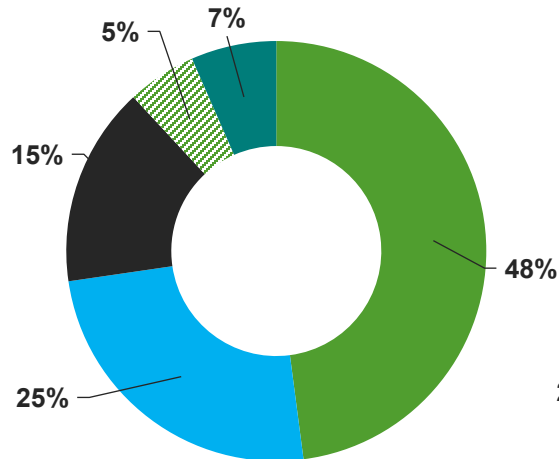
What Is and Isn't in the FY21 CIP?

- Focus is on continuing investments already underway and those that had been planned to start in FY21
- Consistent with FY21 projects anticipated in year 2 of approved FY20-24 CIP
 - Few projects have been shifted in or out of FY21 from current CIP
 - Those changes are detailed in this deck and are the result of project-specific concerns, not budgetary issues
- Consistent with the STIP
 - MPOs have been meeting virtually to revise TIPs and STIP
- Does not assume new funding sources or new programs not currently authorized/funded
 - Does assume one year \$200 million Chapter 90 program will be authorized
- Some revenue sources are being adjusted to reflect current realities (e.g. tolls)

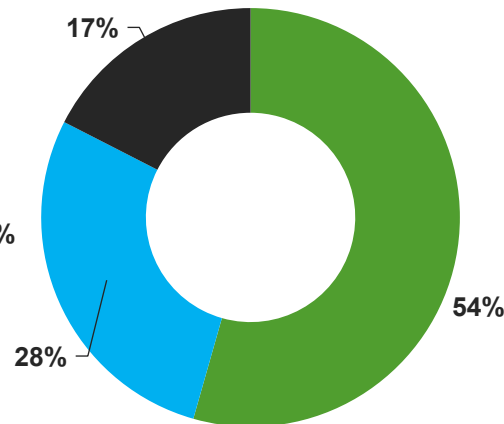


FY21 Plan: \$3.7 billion

Overall spending breakdown*



Overall spending by priority



millions

	FY 21 per FY20-24 CIP	DRAFT FY 2021 CIP	Difference
Reliability	\$1,563.0	\$1,795.8	+\$232.8
Modernization	\$927.1	\$927.9	+\$0.8
Expansion	\$862.2	\$576.7	-\$285.4
Chapter 90 & Municipal Programs	\$214.2	\$200.0	-\$14.2M
Planning, Enterprises Services, & Other	\$209.5	\$246.3	+\$36.8
one-year total	\$3,776.1	\$3,747.7	-\$29.3

Overall:

- The draft SFY 2021 CIP maintains the investment strategy of the prior CIPs. A majority of funds go toward the reliability and modernization of our transportation system, with targeted investments in expansion of the system. The plan is focused on projects and programmed investments that are currently underway.
- A revamped five year CIP will be developed when a clearer understanding of the status of the economy, the Transportation Bond Bill and Federal reauthorization language is available.

Other highlights:

- MassDOT pay-go capital revised to align with FY 21 operating budget; supports the Metropolitan Highway System, Western Turnpike and Tobin Bridge capital needs
- Incorporates the additional REP funding (\$279 million) provided in September 2019 for procurement of new bi-level commuter rail coaches for the MBTA

Adjustments to Revenues/Sources – MassDOT/MBTA

- Bond Cap targets provided on April 3, 2020 have been adjusted
 - 2021 bond cap targets were decreased (\$13.5 million) to eliminate authorizations contingent on the Transportation Bond Bill (TBB)
- MassDOT pay-go capital (i.e. Metropolitan Highway System (MHS), Western Turnpike (WT), Tobin Bridge (Tobin)) has declined due to reductions in toll revenue and need to use toll funds in operating budget; pay-go capital available has decreased (\$60.2 million)
 - MHS (\$39.9 million decrease); WT (\$13.4 million decrease); Tobin (\$7.0 million decrease)
 - However toll reserves still support levels assumed in earlier versions of the CIP; pay-go revenues plus reserves are:
- Federal aid sources are final and tied to State Transportation Improvement Program (STIP) projects programmed for 2021-2025; slight increase in reimbursements (\$7.9 million) reflects projects and timing programmed in the STIP
- MBTA Pay-Go/Lockbox funding has been aligned with operating budget revenue scenarios

A Note on MBTA Revenue

- CIP funding sources previously presented to the Boards assumed a continuation of \$150 million in annual lockbox deposits - \$60 million in state bond cap and \$90 million from additional operating assistance
 - Lockbox funds are programmed to specific projects as well as salary costs for bond-funded projects
- Given the current statutory restriction on use of bond funds for capital salaries, lockbox funds are the only available source to pay personnel costs for projects funded by State and MBTA bond proceeds.
 - Capital salary costs estimated ~\$66M for FY21; \$40M for bond-funded projects and \$26M for lockbox-funded projects
- Budget scenarios presented to the FMCB on 5/4 assume full \$127 million of additional contract assistance is dedicated to the operating budget, with no funds available for the capital program projects via the lockbox.
- In order to minimize disruption to the capital program and continue in-flight projects:
 - MBTA will request the legislature to remove the restriction on the use of bond funds for capital salaries
 - Projects currently funded by lockbox would be shifted to alternative funding sources
- Anticipated FY21 capital spending goals are achievable without the lockbox as a source of project funding

Overview FY21 projects and changes

- In general, the FY 21 plan looks very similar to year two of last year's CIP
 - While due to the global pandemic, some projects will cost more and/or take longer to complete, the project list remains essentially the same
- For Highway, three new projects have been added to 2021
 - Southborough/Westborough design/build bridge (rehabilitation of S-20-022, S-20-024 & W-24-032 & replacement of S-20-023) project (fast-track basis) – \$31.1 million
 - Orange bridge replacement (O-03-021, Route 2 over Route 202) project (ad date accelerated 10 months) - \$4.8 million
 - Taunton Route 24/Route 140 interchange improvements (ad date accelerated 15 months) aligns with South Coast Rail program construction - \$6.1 million
- For MBTA, only one significant project added in 2021
 - Tower 1 Early Action Project (total cost ~ \$82 million) with award of a funding grant (\$41.2 million) from Federal Railroad Administration (\$11 million spending for 2021)
 - New expenditures are focused on:
 - Advancing high-priority safety initiatives and capital maintenance
 - Advancing planning, design, and real estate for bus maintenance facilities
 - Planning and design for longer-term programs to benefit the Red and Orange Line, Commuter Rail, Blue Line, Green Line, and power network



FY21 Plan: virtual interactive format and public engagement

- Similar to last year the CIP document will be presented as a virtual “story map,” providing users the opportunity to interact with the CIP content and comment on specific projects
- Unlike last year there will be no in-person public outreach meetings
- In lieu of in-person public meetings, MassDOT/MBTA has organized six virtual regional public meetings that will be hosted by the respective Metropolitan Organizations (MPOs)
- The presentation for each of the meetings will provide a brief overview of the CIP and focus on the 2021 investments in that particular region
 - Public comment will be accepted as part of the virtual public meeting and is also encouraged via the online public comment tool
 - While each meeting will focus on a specific region, comments will be accepted on any aspect of the CIP



Plan update: engagement for draft FY21 CIP

- 6 virtual public meetings across the Commonwealth to be held in collaboration with the Metropolitan Planning Organizations (MPOs)
 - **May 18th - Cape Cod** (Cape Cod Commission staff host) – Zoom
 - **May 19th - Southeastern Mass** (Southeastern Regional Planning & Economic Development District staff host) – Zoom
 - **May 20th - Central Mass** (Central Mass Regional Planning Commission staff host) – Zoom
 - **May 21st - Boston** (Central Transportation Planning Staff host) – Zoom
 - **May 26th - Berkshire** (Berkshire Regional Planning Commission staff host) – Zoom
 - **May 27th - Haverhill** – (Merrimack Valley Planning Commission staff host) - Zoom
- Other Opportunities for Public Participation
 - **CIP Comment Tool:** Comments will be accepted directly on proposed projects through the [CIP Online Comment Tool](#). This tool also includes a general comment form for comments that are not project-specific.
 - **Email:** Comments can be emailed to MassCIP@state.ma.us.
 - **Letters:** Hard letters will be accepted from stakeholders and members of the public wishing to use non-virtual means to participate.



Next steps and discussion

- Finalize content in on-line format for review during public comment period
- Request approval from Joint MassDOT Board of Directors and FMCB to release draft CIP for public comment
 - Analysis of public comments will be presented to the Joint Boards of Directors and FMCB in June
- Continue with mapping of investments and an equity analysis before the Joint Board votes on final 2021 CIP in June
- **Today:**
 - Need feedback on proposed draft CIP for SFY 2021
 - Seeking Joint MassDOT/FMCB approval to release draft CIP for public comment

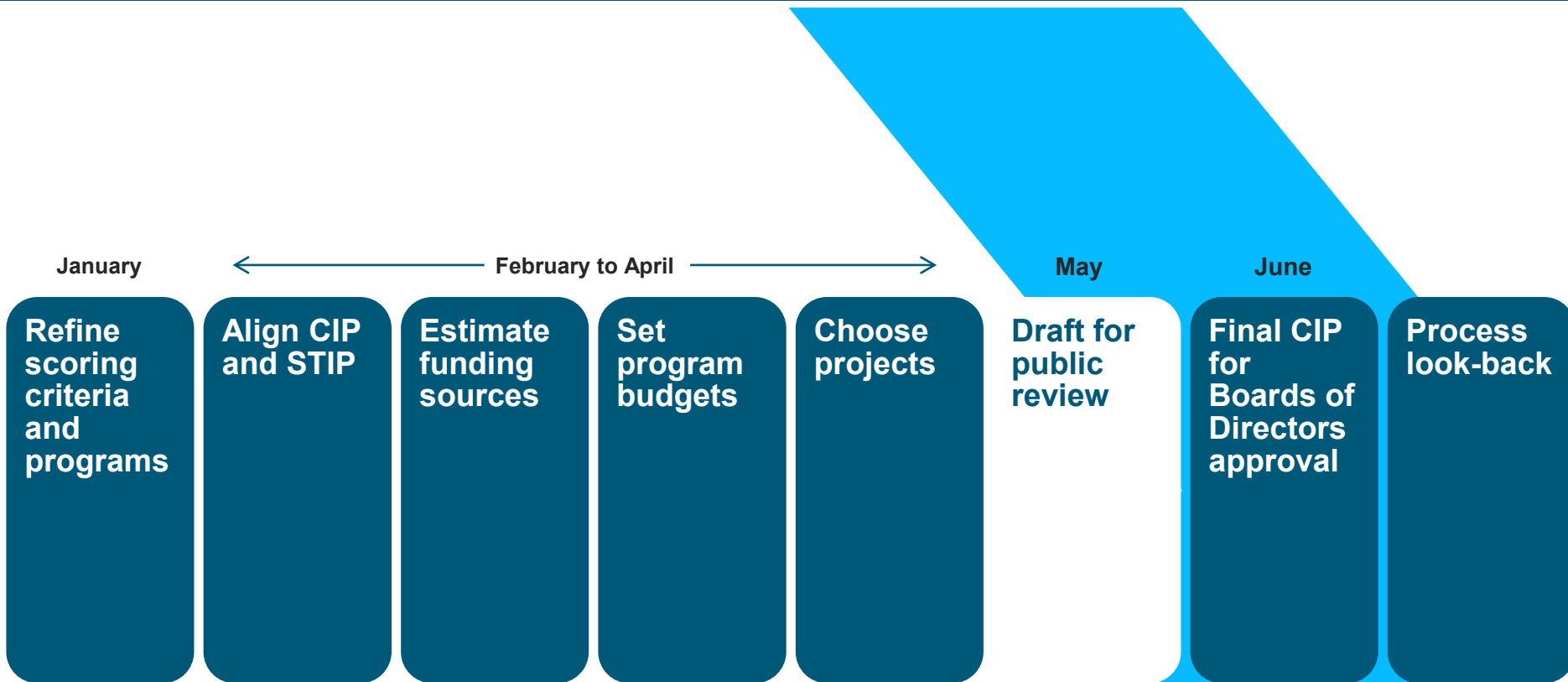


FY21 CIP: Appendix

- **2021 CIP Approach/Improvements**
 - CIP On Line Comment Tool
- **Project Changes by Division/Program**
- **Sources and Spending**
- **Program Adjustments and Program Budget changes**



2021 Capital Investment Plan process



Where we are:

- **Finalize draft FY21 Capital Investment Plan**
- **Present to CPC May 6, Joint Boards May 11**
- **Post draft CIP for comment; engage public through multiple avenues (virtual)**



CIP Online Comment Tool

- The CIP online comment tool and interactive map allows users to view and provide comments on every project included in the draft CIP. General, non-project specific comments may also be submitted.
- Users can filter projects by MassDOT Division, municipality, MPO region, CIP program, and cost. Users can also search for projects by name and enter their address to view nearby projects.
- The online comment tool is available at this link: <https://gis.massdot.state.ma.us/cipcommenttool/>

massDOT Capital Investment Plan Comment Tool Go to CIP Document Help General Comment Select Language Project Search: Search for a project. E.g. Red-Blue Connector

Filter Projects

MassDOT Division
Highway

Town
BRAINTREE

MPO

☒ Town-wide projects
☒ RTA-wide projects
☒ Highway District projects

CIP Program
(To select multiple CIP programs, hold the Ctrl button and click each program you want to include)
All
Highway | ADA Retrofits
Highway | Allston Multi-Modal
Highway | Bicycle and Pedestrian

Cost Range
Min: \$ 0
Max: \$ 5,000,000,000

To view town, RTA, or statewide projects which match the current filters, click on that town or RTA in the map

Find address or place

BRAINTREE: ADAPTIVE SIGNAL CONTROLS ON ROUTE 37 (GRANITE STREET) - (608651)

Additional Project Information.
MassDOT Division: Highway
Location: Braintree
Program: Highway | Intersection Improvements
Total Cost: \$732,817

This project was programmed by the Highway within the Highway | Intersection Improvements CIP Program. It is located in Braintree and has a total cost of \$732,817.

Zoom to 1 of 4

Point Projects

- 1 | Reliability, Aeronautics
- 1 | Reliability, MBTA
- 1 | Reliability, RMV
- 2 | Modernization, Aeronautics
- 2 | Modernization, MBTA
- 2 | Modernization, RMV
- 3 | Expansion, MBTA
- Planning and Enterprise Services, Planning and Enterprise Services

Linear Projects

- Highway, 1 | Reliability
- Highway, 2 | Modernization
- Highway, 3 | Expansion
- MBTA, 3 | Expansion
- Rail, 1 | Reliability
- Rail, 2 | Modernization

Leave a Comment

First Name
Massachusetts

Last Name
Citizen

Email
comment@citizen.com

Zip Code
02000

Organization
Citizens Organization

Comments
I support this project

Submit Comment

Comments
This project currently has no comments.

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FY21 Plan : approach and improvements

Capital Planning Approach

- ▶ This is a one-year plan
- ▶ The majority of the CIP was set in motion in SFY 2020-2024; no new policy initiatives incorporated
- ▶ Nearly one third of the CIP is dedicated to projects with our municipal partners

Priorities: For 2021, since the CIP focuses primarily on existing projects, the emphasis remains on improving the reliability and modernization of our assets with our investments accounting for approximately 73% of our programmed spending in 2021.

Programs: this CIP update has changed some programs to better reflect the needs of modal divisions or asset management. There are 73 investment programs for this CIP.

Project selection: In the five years to be developed later, changes in the methodology for scoring projects' potential economic impacts as part of the evaluation process for modernization and expansion investments will be reflected. These changes align with MassDOT's policy goals related to the importance of connections between people and places, as summarized in a number of recent reports including the final report of the Commission on the Future of Transportation in the Commonwealth and "Congestion in the Commonwealth." For 2021, the plan includes primarily existing projects underway or projects soon to be advertised and/or awarded and thus the revised scoring adjustments were not relevant.

Planning for Performance Tool: the tool was revamped in prior years to more clearly reflect the CIP programs. The tool provides data and analysis for some programs. The tool will continue to be refined for use in future CIPs to forecast the performance of as many programs as feasible.

Equity Analysis: this CIP reflects changes in the methodology for how programmed investments are analyzed to ensure equity across the Commonwealth and updated methodology will be utilized for our programmed investments for 2021. Efforts this year focused on work towards the goal of innovation and improved equity analysis methodology. Changes included using the 2014 American Community Survey (ACS) Five Year Estimates controlled to the 2010 Decennial Census for demographic data and changing the granularity of the geographic equity map from tracts to county subdivision (municipality) to increase accuracy.

CIP and STIP alignment: the development timelines of the CIP and STIP were aligned so that all applicable investments are identified in each document. This is important for the CIP to more accurately reflect regional priority projects identified by our MPO partners. *e-STIP* was successfully launched in February 2020 and has been used by our regional planning partners and MassDOT to build the 2021-2025 STIP.



Review of FY21 projects and changes

- The following tables highlight significant changes primarily for projects worth \$15 million or greater in total cost:
 - New projects added in this CIP
 - Deleted or unfunded projects as compared to 2020-2024
 - Changes in cost (>10%) to total costs as compared to 2020-2024 (see Appendix)
- Cost drivers include:
 - Additional inflation costs incurred when scheduled start of project shifts out
 - Highway project costs include escalation by 4% to mid-point of construction (per guidance from FHWA)
 - Conversely, if project construction is initiated sooner, inflation adjustment could reduce total project cost
 - Scope changes to MassDOT or MBTA projects
 - Scope changes to MPO projects or regional target projects not under MassDOT or MBTA control
 - Cost changes for materials, e.g. changes to cost of steel, liquid asphalt



Plan update: project status

Project status – new projects

Program / Project	2020-2024 CIP 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Aeronautics / Airport Pavement			
Aeronautics / Rehabilitate Taxiway Echo at Nantucket Memorial Airport	\$0.0	\$14.6	Rebuild taxiway; funded with FAA grant; project initiated in FY 20; not originally in 2020-2024 CIP
Highway / Bridge Program			
Highway / Southborough/Westborough Bridge rehabilitation of S-20-022, S-20-024 & W-24-032 & replacement of S-20-023	\$0.0	\$31.1	Design-Build projected added to project on fast track basis
Highway / Orange Bridge Replacement, O-03-021, Route 2 over Route 202	\$0.0	\$4.8	Advertisement moved up approximately 10 months
Highway / Capacity Program			
Highway / Taunton – Interchange Improvements at Routes 24 & 140, including replacing T-01-045 AND T-01-046	\$0.0	\$6.1	Advertisement moved up approximately 15 months; coordinated with SCR program

Plan update: project status

Project status – other status changes

Program / Project	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Highway / Bridge Program			
Highway / Haverhill – Bridge replacement - I-495 over Merrimack River	\$18.7	\$24.8	Cash flow projections revised based on actual construction schedule
Highway / Greenfield/Montague – Bridge rehabilitation - Montague City Road over Connecticut River (General Pierce Bridge)	\$5.5	\$10.6	Change to project phasing allowed for a compressed schedule
Highway / Northampton - Bridge Replacement N-19-059, I-91 over US Route and B&MRR, Bridge Replacement, N-19-060, I-91 over Hockanum Road and Improvements to I-91/Interchange 18	\$21.2	\$7.7	Advertisement moved out approximately 6 months



Plan update: project status

Project status – other status changes

Program / Project	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Highway Interstate Pavement Program			
Highway Littleton/Westford – Interstate maintenance and related work on I-495	\$3.7	\$9.7	Cash flow projections revised based on actual construction update
Highway / Non-Interstate Pavement Program			
Highway / District 3 – Scheduled and emergency resurfacing and related work at various locations	\$0	\$5.8	Project added to utilize new NHS NFA Non-Interstate Paving funds
Highway / Reading - Resurfacing and related work on Route 28 (Main Street)	\$0	\$3.4	Cash flow projections revised based on actual construction update



Plan update: project status

Project status – other status changes

Program / Project	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Highway / Roadway Reconstruction Program			
Highway / Boston – Reconstruction of Rutherford Avenue from City Square to Sullivan Square	\$12.8	\$0	Advertisement date moved from June 2020 to June 2021
Highway / Charlton/Oxford – Reconstruction of on Route 20 from Richardson's Corner easterly to Route 12, includes rehabilitation of C-06-023 and replacement of O-06-002	\$8.8	\$0	Advertisement date moved out approx. 6 months - first construction cash flow will be in FY22
Highway / Boston – Sidewalks, wheelchair ramp & crosswalks repairs at various CA/T locations (CRC 25) Contract 2	\$0	\$4.8	Construction extended approximately 10 months
Highway / Tunnels Program			
Highway / Boston – Lighting repairs in the I-93 tunnel (CRC 170 and 17F)	\$25.8	\$10.2	Estimated project cost reduced from \$53M to \$32M due to scope reduction

Plan update: project status

Project status – other status changes

Program / Project	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Registry of Motor Vehicles / ATLAS Program			
RMV / ATLAS	\$34.9	\$4.9	Reflects progress towards completion of project; remaining spending for International Registration Program
Rail / Track and Right-of Way Modernization Program			
Rail / Rail Line capacity project for New England Central Railroad	\$30.0	\$20.0	FRA grant initiation was delayed and required shift in project schedule.



Plan update: project status

Project status – deleted projects

Program / Project	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Highway / Non-Interstate Pavement Project			
Highway / Gloucester/Essex/Manchester by the Sea/Wenham – Pavement preservation and related work on Route 128	\$7.1	\$0	Project deactivated; work completed on Project 608327



Plan update: project status

Project status – changes to total project cost

Project (in design)	2020-2024 CIP: 2021 project cost (in millions)	2021 project cost (in millions)	Comments
Highway / Allston Multi-Modal Program			
Highway / Allston	\$21.0	\$23.0	Design and permitting costs updated to reflect the additional program development costs to develop preferred alternative

Plan update: project status (MBTA Projects)

Project status – New projects

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Reliability: MBTA / Track, Signal and Power			
Power Systems Reliability Program	N/A	\$5.0	New program to evaluate and prioritize the repair and replacement of power system infrastructure that supports MBTA transit system and facilities
Modernization: MBTA / Green Line Transformation			
GL Traction Power Upgrades for Increased Capacity	N/A	\$1.2	New project to upgrade traction power system for all branches of the Green Line
B Branch Accessibility & Capacity Improvements	N/A	\$0.25	New project to upgrade two sections of the B Branch to allow for Type 10 vehicle operation
Modernization: MBTA / Rail Transformation			
Procurement of Passenger Locomotives – Future Fleet	N/A	\$1.0	New project to fund procurement of additional Commuter Rail Locomotives
Rail Vision – Early Action Items	N/A	\$1.5	Funds to support near term investments that are foundational to future Rail Vision implementation



Plan update: project status (MBTA Projects)

Project status – New projects

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Modernization: MBTA / Risk Management & Mitigation			
Electrical Safety - Incident Energy Analysis and System Upgrades	N/A	\$1.6	New effort to address system wide electrical hazards and implement the Electrical Safety Program
Safety Management System (SMS) Implementation	N/A	\$3.8	New Safety Department effort related to implementation of a Safety Management System
Modernization: MBTA / Technology and Innovation (new program)			
IT Governance Committee - Modernization Investments	N/A	\$2.0	Funds to support IT related investments, funds allocated by new MBTA IT Governance Committee
Expansion / Expansion Project Development			
Rail Transformation Planning Studies	N/A	\$0.5	Funds to support planning and technical studies necessary for future Rail Transformation investments

Plan update: project status (MBTA Projects)

Project status – Other status changes

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Reliability: MBTA / Bridges and Tunnels			
East Street Bridge Replacement (Dedham)	\$2.1	\$7.7	Construction funding for the replacement of East Street Bridge (Dedham)
Gloucester Drawbridge Replacement	\$65.7	\$38.6	Additional funding needed for construction due to unforeseen scope and schedule delay
Tunnel Emergency Ventilation Program	\$0.95	\$1.5	Funds to support inspection and monitoring of existing system
Reliability: MBTA / Facilities			
Bus Facility Modernization	\$125.0*	\$60.4	Funds to support facility design and real estate costs for Quincy and Southamptn bus facilities
Bus Facility Interim Improvements	N/A*	\$20.0	On-going, interim improvements to MBTA bus facilities.

*Bus Facility Modernization and Bus Facility Interim Improvements were previously included under the same project “Bus Maintenance Facility”

Plan update: project status (MBTA Projects)

Project status – Other status changes

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Reliability: MBTA / Revenue Vehicles			
Locomotive Overhaul	\$69.0	\$18.0	Additional funds for existing project to overhaul F40 locomotives
Reliability: MBTA / Stations			
Worcester Union Station Accessibility Improvements	\$3.8	\$1.8	Funds to support existing project through construction
South Attleboro Station Accessibility Improvements	\$4.4	\$1.8	Funds to support existing project through construction
Alewife Garage Rehabilitation	\$14.0	\$13.0	Funds to support an additional year of ongoing repairs
Reliability: MBTA / Track, Signal and Power			
Maintenance of Way (MOW) Systemwide Initiatives	\$7.1	\$2.0	On-going project to support urgent repair of track infrastructure
Commuter Rail (CR) Track SGR and Resiliency Program	\$8.2	\$3.0	On-going project to replace track, ties and switch timbers on the Commuter Rail network

Plan update: project status (MBTA Projects)

Project status – Other status changes

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Modernization: MBTA / Bus Transformation (new program)			
Bus Stops and Amenities	\$2.0	\$1.6	Funds for existing project to fix poor condition bus shelters and add new bus shelters and amenities
Modernization: MBTA / Commuter Rail Safety and Resiliency			
Commuter Rail – CR Fiber Optic Cable Network Resiliency	\$28.7	\$3.5	Funds to support the on-going installation of fiber optic cables along the Commuter Rail ROW
Modernization: MBTA / Fare Transformation			
Fare Transformation (previously AFC 2.0)	\$210.0	\$44.7	Additional funds for existing project to develop an account-based fare payments system
Modernization: MBTA / Green Line Transformation			
Newton Highlands Station Green Line Accessibility	\$21.8	\$5.5	Additional funds for existing project to support new project scope

Plan update: project status (MBTA Projects)

Project status – Other status changes

Program / Project	2020-2024 CIP project cost (in millions)	2021 project cost (in millions)	Comments
Modernization: MBTA / Rail Transformation			
Framingham/Worcester Line Third Track and Station Improvements	\$3.8	\$0.72	Funds to support project through full design
Modernization: MBTA / Red/Orange Line Improvements			
Implementation Of Programmed Station Stops	N/A	\$1.5	Design and installation of Programmed Station Stop System on new Orange and Red Line vehicles (part of Red/Orange Line Vehicle project)

Changes in FY21 sources since April CPC and Joint Board

MassDOT - decrease of \$88 million in sources since April discussion

- Pay-go capital (annual revenue) (MassDOT) decreased by \$60.2 million as compared to amounts estimated in April
 - Tied to final draft FY 21 operating budget; existing reserves sufficient to cover decrease
 - Adjustment reflects reduced traffic and revenues due to COVID-19 impacts
- FHWA reimbursements increased over FY 21 assumptions in last plan
 - Tied to projects programmed in the FFY 2021-2025 STIP and incorporated into FY 21 CIP
- Decreases in federal reimbursements and tolls spending offset by higher bond cap and REP spending
- Bond cap reduced since proposed new municipal initiatives not part of FY 21 CIP

MBTA – total decrease of \$27.5 million in sources since April discussion

- Pay-Go/Lockbox decreased to align with operating budget revenue scenarios
- PTC/ATC/Fiber Resiliency financing increased to reflect project cash flows
- State Bond cap and REP decreased tied to revised projected cash flows for SCR
- Other adjustments align with project cash flows and carryover



Bond Cap Targets for MassDOT and MBTA

Category / (\$ millions)	FY 21
MassDOT	\$617.4
Chapter 90	200.0
MBTA	60.0
SCR	160.0
Atlas/IRP ²	4.9
Port Projects	35.0
Revised Bond Cap Target Subtotal³	\$1,077.3
Bond Cap for Municipal Projects⁴	\$13.5
Original Bond Cap Target	\$1,090.8

¹Totals may not add due to rounding.

²International Registration Program (under RMV).

³New bond cap proposed for new municipal initiatives⁴ is not included given the uncertainties related to timing and final substance of the Transportation Bond Bill legislation

MassDOT sources comparison (changes highlighted in red)

Projected sources (in millions)	April CPC FY21	May CPC FY 21
Federal Highway (FHWA) reimbursements	\$740.6	\$750.3
Federal Transit (FTA) reimbursements**	\$6.0	\$6.0
Federal Aviation (FAA) reimbursements and grant draws	\$27.1	\$27.1
Federal Rail (FRA) reimbursements and grant draws	\$7.2	\$7.2
Subtotal federal sources*	\$780.9	\$790.6
Bond cap	\$882.8	\$857.3
FHWA Next Generation Bridges - GANs	\$25.0	\$0.0
Accelerated Bridge bonds	\$0.0	\$10.0
Rail enhancement bonds	\$25.7	\$28.6
CARM***	\$218.9	\$218.9
Metropolitan Highway system (MHS) pay-go	\$206.7	\$166.8
Tobin Bridge (Tobin) pay-go	\$99.6	\$92.6
Western Turnpike (WT) pay-go	\$225.4	\$212.1
Municipal and local funds	\$0.6	\$0.6
Reimbursable and 3 rd parties	\$6.5	\$6.5
Public private partnerships/Other State Funds**** (TBD)	\$5.7	\$5.7
Subtotal of non-federal sources*	\$1,696.9	\$1,599.2
Total sources*	\$2,477.8	\$2,389.8

Excludes TBB funding assumption

* Totals may not add due to rounding | ** FTA reimbursements for MassDOT projects only; RTA federal funds are not included |
 Available balance as of 11/30/2019. | *Reflects additional state funds for electric bus procurements, if available. Funds received by DEP from VW settlement of emissions lawsuit.

MBTA sources comparison (changes highlighted in red)

	April CPC		May CPC	
Projected sources (in millions)	Funds on Hand (as of 7/1/19)	FY 21	Funds on Hand (as of 7/1/19)	FY 21
Federal Highway (FHWA) reimbursements	\$1.9	\$14.7	\$1.9	\$14.7
Federal Transit (FTA) reimbursements	\$317.9	\$305.2	\$319.5	\$305.2
Existing FTA reimbursements and grant draws	\$807.7	\$0.0	\$819.0	\$0.0
FTA Full funding grant agreement (GLX FFGA)	\$48.3	\$300.0	\$53.1	\$300.0
FRA Tower 1 grant	\$0.0	\$11.0	\$0.0	\$11.0
Other federal funds	\$19.8	\$0.0	\$18.8	\$0.0
Subtotal federal sources	\$1,195.6	\$631.0	\$1,212.5	\$631.0
State Bond cap	\$0.0	\$232.0	\$0.0	\$190.0
Rail enhancement bonds	\$0.0	\$536.4	\$0.0	\$432.3
Revenue bonds	\$16.4	\$500.0	\$49.3	\$500.0
Positive Train Control (PTC) financing	(\$1.2)	\$44.8	\$0.0	\$190.5
Municipal and local funds (GLX)	\$0.0	\$34.0	\$0.0	\$34.0
Reimbursable and 3 rd parties	\$0.0	\$30.0	\$0.0	\$26.9
Pay-Go/Lockbox (MBTA)	\$22.8	\$90.0	\$25.2	\$66.0
Capital maintenance fund	\$14.2	\$0.0	\$14.2	\$0.0
Subtotal of non-federal sources	\$52.2	\$1,467.2	\$88.7	\$1,439.7
Total Sources	\$1,248.0	\$2,098.2	\$1,301.2	\$2,070.7

Excludes TBB funding assumption

Note: Federal FTA funds include match

Note: The use of Revenue Bonds in each year of the CIP includes both cash on hand and new issuances. It does not represent the amount of new issuances anticipated each year. | ** Totals may not sum due to rounding

MassDOT spending by sources (Preliminary Draft)

Projected sources (in millions)	FY21
Federal sources of funds	
Federal Highway (FHWA) reimbursements	\$750.3
Federal Transit (FTA) reimbursements**	\$7.6
Federal Aviation (FAA) reimbursements and grant draws	\$21.8
Federal Rail (FRA) reimbursements and grant draws	\$7.2
Subtotal federal sources*	\$787.2
Bond cap	\$857.3
Next Generation Bridges - GANs	\$ -
Accelerated Bridge bonds	\$10.0
Rail enhancement bonds	\$68.6
CARM	\$53.6
Metropolitan Highway system (MHS) pay-go	\$77.3
Tobin Bridge (Tobin) pay-go	\$13.57
Western Turnpike (WT) pay-go	\$112.8
Municipal and local funds	\$0.0
Reimbursable and 3 rd parties	\$6.5
Public private partnerships/Other State Funds***	\$5.7
Subtotal of non-federal sources*	\$1,165.8
Total sources*	\$1,952.9

Adjusted for no new
municipal programs or
Next Gen GANs
spending

* Totals may not add due to rounding | ** FTA reimbursements for MassDOT projects only; RTA federal funds are not included | ***Reflects additional state funds for electric bus procurements, if available. Funds received by DEP from VW settlement of emissions lawsuit.

MBTA spending by source (Preliminary draft 5/7/20)

Spending by source (in millions)	FY 21
Federal sources of funds	
Federal Highway (FHWA) reimbursements	\$41.3
Federal Transit (FTA) reimbursements	\$177.2
FTA executed grant agreements	\$228.9
FTA Full funding grant agreement (GLX FFGA)	\$48.0
FRA Tower 1 grant	\$11.0
Other federal funds	\$8.4
Subtotal federal sources	\$514.9
State Bond cap	\$164.2
Rail enhancement bonds	\$431.1
Revenue bonds	\$331.4
PTC/ATC/Fiber – Future RRIF Loans	\$190.5
Municipal and local funds (GLX)	\$34.0
Reimbursable and 3 rd parties	\$14.0
Pay-Go/Lockbox (MBTA)	\$66.0
Capital maintenance fund	\$4.0
Transportation Bond Bill – Municipal Challenge	\$0.0
Subtotal of non-federal sources	\$1,235.1
Total Sources	\$1,750.0

Note: The use of Revenue Bonds in each year of the CIP includes both cash on hand and new issuances. It does not represent the amount of new issuances anticipated each year. | ** Totals may not sum due to rounding



FY21 Plan: program adjustments

Program adjustments

Aeronautics / Airport Capital Improvement program: Program purpose expanded to includes efforts to support the fund the development of the IT systems that support future use of unmanned aerial surveillance to collect, analyze and disseminate data on infrastructure and document work sites are captured under this existing program.

MBTA / Bus Transformation: Program is focused on transforming the bus network. Includes investments previously captured in Accessibility and Customer Technology programs.

MBTA / Commuter Rail Transformation: Program is focused on transforming the Commuter Rail network. Includes investments previously captured in Accessibility and Track, Signals and Power programs.

Rail / Track and Right-of-Way Expansion program: Program will support project development efforts related to passenger service in Western Mass



Plan update: program budget (five-year) changes

Program budget changes

The highlighted program budget updates do not reflect all budget updates, rather changes that are most noteworthy

Program	2020-2024 program budget (in millions)	2021-2025 program budget (in millions)	Discussion
Aeronautics / Airport Pavement	\$123.3 million	\$156.7 million	Program size increased to include ancillary costs of the pavement program (drainage, signage, etc.) and additional funds to address SGR condition
Aeronautics / Airport Capital Improvement	\$146.0 million	\$125.1 million	Program size adjusted to reflect transfer of certain investments to Airport Pavement; program also incorporates efforts to build the IT infrastructure to support use of unmanned aerial surveillance (drones).
Airport / Administration Buildings	\$25.0 million	\$9.9 million	Program reflects reduced funding due to sunset of Statewide Airport Administration Buildings program; includes funding for two remaining buildings currently under design.
Highway / Allston Multi-Modal*	\$21.0 million	\$273.0 million	Program size includes design and permitting activities plus investments for early mobility investments
Highway / Bridge	\$2,281.7 million	\$2,526.0 million	Program Size based on current program needs with an allocation to cover program management / development costs. Includes \$525 million for "Next Gen Bridge" program to be funded with new GANs
Highway / Capacity	\$308.1 million	\$290.0M	Program sized to include current projects and includes allocation for program management / development costs. Highway's SCR commitments under the MBTA program.
Highway / Cape Cod Bridges – Approaches*	\$0.0 million	\$20.0 million	Program sized to include commitment for additional feasibility study and planning/design efforts.
Highway / Equipment	\$96.4 million	\$110.0 million	Program size based on identified needs in the Districts

Program budget updates continued

Program	2020-2024 program budget (in millions)	2021-2025 program budget (in millions)	Discussion
Highway / Facilities	\$181.7 million	\$62.0 million	Program resized based on current program needs. 2020-2024 CIP program assumed a new D5 HQ facility which is not under consideration and the new D3 HQ facility
Highway / Interstate Pavement	\$316.9 million	\$372.0 million	Program resized based on program needs and reflects additional funding assumptions to address TAMP and other performance metrics
Highway / Safety Improvements	\$265.3 million	\$283.0 million	Program resized based on current program needs with an allocation to cover program management / development costs.
Highway / Shared Use Paths and Bicycle/Pedestrian	\$203.2 million	\$237.0 million	Size based on anticipated portfolio of projects within the 2021-2025 CIP and STIP and includes allocation for program management/development costs.
Highway / Tunnels	\$393.8 million	\$677.0 million	Program resized to address current portfolio of projects, findings of the Triennial review and capacity for additional investments; includes Sumner and Prudential tunnel projects and CANA upgrades which were not in the 2020-2024 program.
IT / Cyber/Information Security	\$20.5 million	\$47.0 million	Program resized due to EOTSS mandates and directly correlates to improvement in security-oriented foundational infrastructure, firewalls, web gateways and other cloud investments.
IT / Enterprise/BPR / Automation	\$25.1 million	\$0.0 million	Program eliminated and activities absorbed under other programs.
IT / Workforce Productivity	\$19.3 million	\$45.0 million	Program size increased to reflect consolidation from other programs providing better tools to shared service areas.

The highlighted program budget updates do not reflect all budget updates, rather changes that are most noteworthy

Program budget updates continued

Program	2020-2024 program budget (in millions)	2021-2025 program budget (in millions)	Discussion
MBTA / Bridge and Tunnels	\$506.9 million	\$559.0 million	Program resized to address current program needs including North Station Draw 1.
MBTA / Commuter Rail Safety and Resiliency	\$510.7 million	\$400.0 million	Program size decreased to account for existing program needs; majority of commuter rail needs addressed in other CIP programs.
MBTA / Customer Experience and Technology	\$184.4 million	\$0.0 million	Program size reflects transfer of investments to Bus Transformation and Stations. Remaining investments combined with Process Improvement into new Technology and Innovation program.
MBTA / Facilities	\$370.6 million	\$422.0 million	Program resized to address current program needs.
MBTA / Fare Transformation*	\$209.8 million	\$356.0 million	Program resized to address current needs.
MBTA / Green Line Transformation	\$925.0 million	\$972.0 million	Program resized to address current needs.
MBTA / GLX	\$1,326.4 million	\$1,015.0 million	Program size reflects progress towards completion of prior programmed investments
MBTA / non-GLX Expansion Projects	\$43.0 million	\$35.0 million	Program size reflects current program needs
MBTA / Red Line/Orange Line Improvements	\$1,580.7 million	\$1,441.0 million	Program reflects progress towards completion of prior programmed investments
MBTA / Revenue Vehicles	\$1,068.8 million	\$1,265.0 million	Program resized to address current program needs and includes additional funds for accelerated commuter rail coach procurement.

The highlighted program budget updates do not reflect all budget updates, rather changes that are most noteworthy

*Program was formerly called AFC 2.0; renamed for 2021-2025 CIP.

Program budget updates continued

Program	2020-2024 program budget (in millions)	2021-2025 program budget (in millions)	Discussion
MBTA / Risk Management and Mitigation	\$68.5 million	\$87.0 million	Program size increased to reflect additional investments that address safety.
MBTA / SCR	\$1,009.6 million	\$932.0 million	Program size reflects progress towards completion of prior programmed investments
MBTA / Stations	\$372.6 million	\$468.0 million	Program resized to include investments associated with wayfinding
MBTA / System Upgrades	\$234.0 million	\$185.0 million	Program size reduced to accommodate additional needs in other Reliability programs.
MBTA / Technology and Innovation	\$0.0 million	\$31.0 million	Program combines investments previously captured under Customer Experience and Technology and Process Improvements and Technology
Rail / Track and ROW Modernization	\$61.1 million	\$87.1 million	Program size increased to address identified Track and ROW upgrades needed to accommodate heavier freight
Rail / Vehicle Expansion	\$31.0 million	\$10.5 million	Program sized based on anticipated needs to support fund procurement and refurbishment of equipment to support future rail passenger services
RMV / ATLAS	\$35.1 million	\$5.0 million	Program reflects completion of project and includes implementation of International Registration program to be completed by FAST Enterprises)
Transit / RTA Vehicle Replacement	\$53.7 million	\$62.7 million	Program sized to address needs identified by the RTAs and for purchase of additional vehicles to maintain state of good repair

The highlighted program budget updates do not reflect all budget updates, rather changes that are most noteworthy

