



# **Massachusetts Bay Transportation Authority**

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## **Integrated Fleet and Facilities Plan (IFFP)**

### **Near-Term Capital Investments**

**May 7, 2018**



## Integrated Fleet and Facilities Plan (IFFP) and Capital Investment Plan (CIP)

- The IFFP is a **fiscally-unconstrained** framework to restore MBTA revenue vehicles and maintenance facilities to a state of good repair within 15 years and build sufficient capacity to meet anticipated ridership growth.
- To begin implementing priority programs and projects identified in the IFFP, MBTA staff proposed FY19-23 CIP program sizes that increased overall investment in revenue vehicles and maintenance facilities.

MBTA CIP Program	FY19-23 CIP Program Size	Fleet and Facilities Investment
Revenue Vehicles	\$1,289M	\$1,289M
Facilities	\$355M	\$355M
Red and Orange Line Improvements	\$1,566M	\$839M
Green Line Extension	\$1,364M	\$222M
<b><i>Total, Fleet and Facilities Investment</i></b>		<b><i>\$2,705M</i></b>

- Many near-term actions are already underway. New capital projects were reviewed and prioritized during the CIP project selection process and accommodated within the program sizes approved by the FMCB.



## Bus and Bus Rapid Transit Fleet and Facility Needs



### Near-term bus and bus rapid transit fleet and facility needs:

- Replace 40' Neoplan ECD fleet; overhaul 40' New Flyer ECD fleet
- Replace 60' Neoplan DMA fleet; overhaul 60' New Flyer Allison fleet
- Evaluate feasibility of phasing in zero/no emissions bus fleet
- Improve the condition and capacity of bus maintenance facilities

### Ongoing bus capital projects (in millions)

Project	Total Budget	FY19-23 CIP
LoNo Bus Procurement Project	10.2	10.0
New Flyer 325 Bus Procurement	232.3	11.7
New Flyer 60' Bus Procurement	59.7	9.1
New Flyer Light Overhaul	16.1	2.5
Overhaul of Neoplan 60' DMA Buses	27.5	5.8
Overhaul of 155 Option New Flyer Buses	43.7	37.4
Overhaul of 192 ECD Buses	39.4	2.0
<b>Total, ongoing projects</b>	<b>428.8</b>	<b>78.4</b>

### New bus capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Option Order – New Flyer Hybrid 40' Bus	172.6	172.6
Future 40' Bus Procurement (FY21-25)	365.8	148.9
Silver Line DMA replacement/expansion	103.4	103.4
Midlife Overhaul of 60' articulated bus	15.9	15.9
Battery Electric Bus Procurement	TBD	52.9
Bus maintenance facilities	TBD	83.1
Other bus maintenance improvements	TBD	TBD
<b>Total, new projects</b>	<b>657.7+</b>	<b>613.9+</b>



## Heavy Rail Fleet and Facility Needs



### Near-term heavy rail fleet and facility needs:

- Replace Red Line and Orange Line vehicles
- Modernize Red Line and Orange Line maintenance facilities
- Execute targeted reliability program for Red Line No. 3 cars
- Continue Blue Line Reliability-Centered Maintenance program

### Ongoing heavy rail capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Red/Orange Line Vehicles	729.0	445.9
Red Line Procurement (Replace No. 3)	225.3	169.2
Red Line No. 3 Targeted Reliability Impr.	44.0	44.0
Cabot Yard Complete Upgrade	124.5	124.5
Wellington Yard Complete Upgrade	99.7	99.7
<b>Total, ongoing projects</b>	<b>1,222.4</b>	<b>883.3</b>

### New heavy rail capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Blue Line Reliability Centered Maint.	TBD	9.7
<b>Total, new projects</b>	<b>TBD</b>	<b>9.7</b>



## Light Rail Fleet and Facility Needs



### Near-term light rail capital needs:

- Perform SGR overhauls on PCC fleet; evaluate options for Mattapan Line
- Procure Green Line Type 9 vehicles to support Green Line Extension
- Perform overhauls on Green Line Type 7 and 8 cars
- Begin planning and design for Green Line Type 10 vehicles

### Ongoing light rail capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Green Line #7 Car Midlife Overhaul	127.1	28.6
Green Line #7 Selective System Overhaul	34.9	31.0
Green Line #8 Reliability Improvements	58.3	49.3
Green Line #9 Procurement	162.7	96.5
GLX Maintenance Facility	125.6	125.6
PCC SGR	8.7	7.7
<b>Total, ongoing projects</b>	<b>517.3</b>	<b>338.7</b>

### New light rail capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Green Line Type 10 Procurement	TBD	5.0
<b>Total, new projects</b>	<b>TBD</b>	<b>5.0</b>



## Commuter Rail Fleet and Facility Needs



### Near-term Commuter Rail and Ferry fleet and facility needs:

- Complete ongoing locomotive rehab and overhaul programs
- Align locomotive procurement strategy with Commuter Rail vision
- Complete ongoing Kawasaki coach overhaul program
- Align coach procurement strategy with Commuter Rail vision
- Overhaul existing catamarans once new vessels come into service

### Ongoing commuter rail and ferry capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Kawasaki Coaches Overhaul	129.7	26.9
Kawasaki Coaches Overhaul - Option	37.6	37.5
Locomotive Overhaul (F40)	30.0	19.1
Locomotive Restoration (UTEX)	12.2	2.7
Locomotive/Coach Improvements	10.1	3.3
Mini-Rehab to Restore Locos and Coaches	10.3	4.2
<b>Total, ongoing projects</b>	<b>229.8</b>	<b>93.7</b>

### New commuter rail and ferry capital projects (in millions)

Project	Total Budget	FY19-23 CIP
Overhaul of Kawasaki 900 series Coaches	66.9	58.0
Procurement of Bi-Level Coaches	658.5	244.7
MBTA Catamaran Overhaul	9.7	9.7
Rochester Maintenance Facility	9.0	6.0
Allston Commuter Rail Layover Facility	TBD	8.5
<b>Total, new projects</b>	<b>734.9+</b>	<b>312.5</b>



## Ongoing Planning and Implementation Activities

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- Integrated fleet and facilities task force will continue to focus on:
  - » Future bus maintenance facility planning
  - » Battery Electric Bus Feasibility Study and Pilot
  - » Future of Silver Line: fleet configuration, fleet size, infrastructure constraints
  - » Incorporation of feedback and finalization of the IFFP
- Ongoing studies and planning efforts will influence capital investment decisions:
  - » Focus40
  - » Bus Service Planning Redesign
  - » Green Line Capacity Study
  - » Mattapan High Speed Line Due Diligence and Initial Options
  - » Commuter Rail Vision
  - » Silver Line Study