

MBTA Federal Capital Program  
Table 1: FFYs 2018-2022 Draft TIP Amendment Two, REVISED  
Presented to the Boston MPO on 12/21/2017

Project Information		FY18-22 TIP (Federal Share Only)					FFY18-22	FFY18-22
TIP Program	ALI*	FFY18 (Fed. Share)	FFY19 (Fed. Share)	FFY20 (Fed. Share)	FFY21 (Fed. Share)	FFY22 (Fed. Share)	Totals (Fed. Share)	Totals (Fed + Match)
<b>Section 5307 Funds:</b>								
Revenue Vehicle Program	12.12.00	\$76,857,975	\$74,521,552	\$114,121,933	\$100,521,933	\$146,121,933	\$512,145,327	\$640,181,659
Stations and Facilities Program	12.34.00	\$30,852,042	\$0	\$0	\$16,000,000	\$0	\$46,852,042	\$58,565,053
Signals/Systems Upgrade Program	12.63.01	\$64,000,000	\$69,200,000	\$0	\$0	\$0	\$133,200,000	\$166,500,000
Elevator and Escalator Program	12.34.02	\$39,200,000	\$0	\$32,000,000	\$29,600,000	\$0	\$100,800,000	\$126,000,000
		\$210,910,017	\$143,721,552	\$146,121,933	\$146,121,933	\$146,121,933	\$792,997,370	\$991,246,712
<b>Section 5337 Funds:</b>								
Bridge and Tunnel Program	12.24.05	\$140,512,259	\$16,000,000	\$29,104,000	\$37,064,000	\$38,730,484	\$261,410,743	\$326,763,429
Stations and Facilities Program	12.34.00	\$108,483,133	\$65,823,318	\$37,109,004	\$37,586,910	\$34,860,288	\$283,862,653	\$354,828,316
Signals/Systems Upgrade Program	12.63.01	\$45,815,066	\$61,600,000	\$79,680,000	\$71,242,094	\$72,302,233	\$330,639,393	\$413,299,241
		\$294,810,458	\$143,423,318	\$145,893,004	\$145,893,004	\$145,893,004	\$875,912,789	\$1,094,890,986
<b>Section 5339 Funds:</b>								
Bus Program	11.14.00	\$15,922,023	\$5,562,970	\$5,683,653	\$5,683,653	\$5,683,653	\$38,535,953	\$48,169,941
		\$15,922,023	\$5,562,970	\$5,683,653	\$5,683,653	\$5,683,653	\$38,535,953	\$48,169,941
<b>Green Line Extension Funding:</b>								
Green Line Extension - New Starts (FFGA)	13.33.02	\$550,000,000	\$150,000,000	\$150,000,000	\$146,121,000	\$0	\$996,121,000	\$1,992,242,856
		\$550,000,000	\$150,000,000	\$150,000,000	\$146,121,000	\$0	\$996,121,000	\$1,992,242,856
<b>Other FTA Funding:</b>								
Quincy Center Bus Terminal - 5339 Discretionary	12.31.11	\$4,273,771	\$0	\$0	\$0	\$0	\$4,273,771	\$5,342,214
Repurposed Bus Earmarks - FFY17	11.24.01	\$2,039,691	\$0	\$0	\$0	\$0	\$2,039,691	\$2,549,614
Positive Train Control - RRIF/TIFIA Financing	12.63.01	\$382,000,000	\$0	\$0	\$0	\$0	\$382,000,000	\$477,500,000
Positive Train Control - Discretionary Grant	12.63.01	\$7,815,963	\$0	\$0	\$0	\$0	\$7,815,963	\$9,769,954
		\$396,129,425	\$0	\$0	\$0	\$0	\$396,129,425	\$495,161,782

\* Note: The "ALI" code is preliminary only, and generally reflects the bulk of the TIP project/program. Within a program there may be several project types with different ALI codes.

FFYs 18-22 Transportation Improvement Program  
Table 2: FFYs 2018-2022 Draft TIP Amendment 2 Summary of Proposed Changes, REVISED

Program	Agency	Proposed Change	What's the Impact?	From	To	Difference
<b>Section 5307 Funds</b>						
Revenue Vehicle Program	MBTA	Increase Funding	Increased FFY18-22 vehicle funding (subject to Fleet Plan)	\$428,000,000	\$512,145,327	\$84,145,327
Stations and Facilities Program	MBTA	Decrease Funding	Some station work accelerated; included in FFY17 grants	\$75,445,210	\$46,852,042	(\$28,593,168)
Systemwide Signals Program	MBTA	Reclassify Funding	Reclassified as Signals/Systems Upgrade Program	\$218,969,914	\$0	(\$218,969,914)
Signals/Systems Upgrade Program	MBTA	Reclassify Funding	Reclassified and decreased (R/O Line Signals moved to 5337)	\$0	\$133,200,000	\$133,200,000
Elevator and Escalator Program	MBTA	Transfer Funding	Elevators shifted from 5337; \$52M moved from FFY17 to FFY18-22	\$0	\$100,800,000	\$100,800,000
				\$722,415,125	\$792,997,370	\$70,582,245

Note: \$70.6M total increase reflects carryover of 5307 formula funds from FFY17 into FFY18.

**Section 5337 Funds**

Bridge and Tunnel Program	MBTA	Decrease Funding	Slight decrease to reflect current cost estimates	\$264,000,000	\$261,410,743	(\$2,589,257)
Elevator and Escalator Program	MBTA	Transfer Funding	Elevator Program shifted to 5307	\$48,000,000	\$0	(\$48,000,000)
Stations and Facilities Program	MBTA	Increase Funding	Slight increase to reflect current cost estimates	\$281,299,171	\$283,862,653	\$2,563,482
System Upgrades Program	MBTA	Reclassify Funding	Reclassified as Signals/Systems Upgrade Program	\$72,000,000	\$0	(\$72,000,000)
Systemwide Signals Program	MBTA	Reclassify Funding	Reclassified as Signals/Systems Upgrade Program	\$64,000,000	\$0	(\$64,000,000)
Signals/Systems Upgrade Program	MBTA	Reclassify Funding	Reclassified and increased (R/O Line Signals, N. Station)	\$0	\$330,639,393	\$330,639,393
				\$729,299,171	\$875,912,789	\$146,613,618

Note: \$146.6M total increase reflects carryover of 5337 formula funds from FFY17 into FFY18.

**Section 5339 Funds**

Bus Program	MBTA	Increase Funding	FFY17 carryover funds shifted into FFY18	\$27,409,749	\$38,535,953	\$11,126,204
				\$27,409,749	\$38,535,953	\$11,126,204

Note: \$11.1M total increase reflects carryover of 5339 formula funds from FFY17 into FFY18.

**Green Line Extension**

Green Line Extension	MBTA	Increase Funding	FFY15-17 funding carried over into FFY18	\$596,121,000	\$996,121,000	\$400,000,000
				\$596,121,000	\$996,121,000	\$400,000,000

Note: GLX New Start (FFGA) funding has been programmed annually since FFY15 (\$100M in FFY15, \$150M in FFY16 and \$150M in FFY17). All \$400M will carry over into FFY18.

**Other FTA Funding**

Quincy Center Bus Terminal	MBTA	Increase Funding	\$4.2M included in FFY17 TIP; carried over into FFY18	\$0	\$4,273,771	\$4,273,771
Repurposed Bus Earmarks	MBTA	Increase Funding	Repurposed bus earmarks; carried over to FFY18	\$0	\$2,039,691	\$2,039,691
PTC - RRIF/TIFIA Financing	MBTA	Increase Funding	\$365M included in FFY17 TIP; carried over into FFY18	\$0	\$382,000,000	\$382,000,000
PTC - Discretionary Grant	MBTA	New Funding	New discretionary grant	\$0	\$7,815,963	\$7,815,963
				\$0	\$396,129,425	\$396,129,425

FFYs 18-22 Transportation Improvement Program  
 Table 2: FFYs 2018-2022 Draft TIP Amendment 2 Summary of Proposed Changes

Initial TIP (Endorsed by MPO on 5/25/17)					
FFY18	FFY19	FFY20	FFY21	FFY22	FFY18-22 Total

\$76,000,000	\$112,000,000	\$40,000,000	\$120,000,000	\$80,000,000	\$428,000,000
\$0	\$31,445,210	\$44,000,000	\$0	\$0	\$75,445,210
\$65,446,986	\$0	\$61,840,976	\$25,840,976	\$65,840,976	\$218,969,914
\$0	\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0	\$0
\$141,446,986	\$143,445,210	\$145,840,976	\$145,840,976	\$145,840,976	\$722,415,125

\$72,000,000	\$0	\$24,000,000	\$96,000,000	\$72,000,000	\$264,000,000
\$0	\$0	\$48,000,000	\$0	\$0	\$48,000,000
\$50,401,533	\$136,853,672	\$47,347,989	\$35,347,989	\$11,347,989	\$281,299,171
\$20,000,000	\$8,000,000	\$28,000,000	\$16,000,000	\$0	\$72,000,000
\$0	\$0	\$0	\$0	\$64,000,000	\$64,000,000
					\$0
\$142,401,533	\$144,853,672	\$147,347,989	\$147,347,989	\$147,347,989	\$729,299,171

\$5,318,786	\$5,434,322	\$5,552,214	\$5,552,214	\$5,552,214	\$27,409,749
\$5,318,786	\$5,434,322	\$5,552,214	\$5,552,214	\$5,552,214	\$27,409,749

\$150,000,000	\$150,000,000	\$150,000,000	\$100,000,000	\$46,121,000	\$596,121,000
\$150,000,000	\$150,000,000	\$150,000,000	\$100,000,000	\$46,121,000	\$596,121,000

\$0					\$0
\$0					\$0
\$0					\$0
\$0					\$0

TIP Amendment (To MPO on 12/21/17)					
FFY18	FFY19	FFY20	FFY21	FFY22	FFY18-22 Total

\$76,857,975	\$74,521,552	\$114,121,933	\$100,521,933	\$146,121,933	\$512,145,327
\$30,852,042	\$0	\$0	\$16,000,000	\$0	\$46,852,042
\$0	\$0	\$0	\$0	\$0	\$0
\$64,000,000	\$69,200,000	\$0	\$0	\$0	\$133,200,000
\$39,200,000	\$0	\$32,000,000	\$29,600,000	\$0	\$100,800,000
\$210,910,017	\$143,721,552	\$146,121,933	\$146,121,933	\$146,121,933	\$792,997,370

\$140,512,259	\$16,000,000	\$29,104,000	\$37,064,000	\$38,730,484	\$261,410,743
					\$0
\$108,483,133	\$65,823,318	\$37,109,004	\$37,586,910	\$34,860,288	\$283,862,653
					\$0
					\$0
\$45,815,066	\$61,600,000	\$79,680,000	\$71,242,094	\$72,302,233	\$330,639,393
\$294,810,458	\$143,423,318	\$145,893,004	\$145,893,004	\$145,893,004	\$875,912,789

\$15,922,023	\$5,562,970	\$5,683,653	\$5,683,653	\$5,683,653	\$38,535,953
\$15,922,023	\$5,562,970	\$5,683,653	\$5,683,653	\$5,683,653	\$38,535,953

\$550,000,000	\$150,000,000	\$150,000,000	\$146,121,000	\$0	\$996,121,000
\$550,000,000	\$150,000,000	\$150,000,000	\$146,121,000	\$0	\$996,121,000

\$4,273,771					\$4,273,771
\$2,039,691					\$2,039,691
\$382,000,000					\$382,000,000
\$7,815,963					\$7,815,963

MBTA Federal Capital Program - FTA Formula Funds

Table 3: FFYs 2018-2022 Draft TIP Amendment Two - Project-Level Backup for Informational Purposes

Presented to the Boston MPO on 12/21/2017

**Section 5307 - Urbanized Formula Funds**

**5307 - Revenue Vehicle Program**

	Federal Share	MBTA Match	Total
10 Locomotive Overhaul	\$24,000,000	\$6,000,000	\$30,000,000
Overhaul of 32 Neoplan 60' DMA Buses - 5307	\$5,989,868	\$1,497,467	\$7,487,335
Commuter Rail Fleet Reliability Program (Subject to Fleet Plan)	\$42,707,998	\$10,676,999	\$53,384,997
Commuter Rail Fleet Procurement (Subject to Fleet Plan)	\$180,000,000	\$45,000,000	\$225,000,000
40-Foot Bus Procurement (Subject to Fleet Plan) - 5307	\$120,000,000	\$30,000,000	\$150,000,000
Green Line Light Rail Fleet Replacement - Design	\$4,000,000	\$1,000,000	\$5,000,000
Green Line Train Protection	\$55,154,298	\$13,788,575	\$68,942,873
Red Line No. 3 Car - Targeted Reliability Improvements	\$35,226,739	\$8,806,685	\$44,033,424
TIP Program Allowance	\$45,066,424	\$11,266,606	\$56,333,030
	<b>\$512,145,327</b>	<b>\$128,036,332</b>	<b>\$640,181,659</b>

**5307 - Stations and Facilities Program**

	Federal Share	MBTA Match	Total
Bus Route Safety and Service Improvements	\$5,960,000	\$1,490,000	\$7,450,000
Iron Horse Operations Control Center	\$24,892,042	\$6,223,011	\$31,115,053
Charlestown Bus - Seawall Rehabilitation	\$16,000,000	\$4,000,000	\$20,000,000
	<b>\$46,852,042</b>	<b>\$11,713,011</b>	<b>\$58,565,053</b>

**5307 - Signals/Systems Upgrade Program**

	Federal Share	MBTA Match	Total
Signal Program - Green Line	\$111,440,000	\$27,860,000	\$139,300,000
Green Line (Non-GLX) Grade Crossings	\$16,800,000	\$4,200,000	\$21,000,000
TIP Program Allowance	\$4,960,000	\$1,240,000	\$6,200,000
	<b>\$133,200,000</b>	<b>\$33,300,000</b>	<b>\$166,500,000</b>

**5307 - Elevator and Escalator Program**

	Federal Share	MBTA Match	Total
Elevator Program - BCIL	\$92,800,000	\$23,200,000	\$116,000,000
Elevator Program - Multiple Location Design	\$8,000,000	\$2,000,000	\$10,000,000
	<b>\$100,800,000</b>	<b>\$25,200,000</b>	<b>\$126,000,000</b>

**Section 5307 Totals**

<b>\$792,997,371</b>	<b>\$198,249,342</b>	<b>\$991,246,712</b>
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**Section 5337 - State of Good Repair**

**5337 - Bridge and Tunnel Program**

	Federal Share	MBTA Match	Total
Bridge Bundling Contract - 6 Comm. Rail Bridges	\$108,000,000	\$27,000,000	\$135,000,000
Emergency Bridge Design	\$11,789,993	\$2,947,498	\$14,737,492
Emergency Bridge Repairs	\$12,503,723	\$3,125,931	\$15,629,654
Bridges - Design Program	\$24,018,484	\$6,004,621	\$30,023,105
Tunnel Rehabilitation Program	\$8,218,542	\$2,054,636	\$10,273,178
North Station Draw 1	\$96,880,000	\$24,220,000	\$121,100,000
	<b>\$261,410,743</b>	<b>\$65,352,686</b>	<b>\$326,763,429</b>

MBTA Federal Capital Program - FTA Formula Funds

Table 3: FFYs 2018-2022 Draft TIP Amendment Two - Project-Level Backup for Informational Purposes  
Presented to the Boston MPO on 12/21/2017

**5337 - Stations and Facilities Program**

	Federal Share	MBTA Match	Total
Braintree and Quincy Adams Garage Rehabilitation	\$89,628,940	\$22,407,235	\$112,036,175
Harvard Square Busway Repairs	\$15,068,204	\$3,767,051	\$18,835,255
Savin Hill Underpass	\$2,887,134	\$721,783	\$3,608,917
Park Street Station Wayfinding Improvements	\$5,211,715	\$1,302,929	\$6,514,644
Commonwealth Ave Stations Access (GL Surface Design)	\$2,640,000	\$660,000	\$3,300,000
Downtown Crossing Vertical Transportation Impr. Phase 2	\$4,000,000	\$1,000,000	\$5,000,000
Auburndale/Newton Comm. Rail Station Accessibility Project	\$16,511,947	\$4,127,987	\$20,639,934
Commonwealth Ave Stations Accessibility	\$10,160,000	\$2,540,000	\$12,700,000
Forest Hills MAB Improvement Project	\$4,000,000	\$1,000,000	\$5,000,000
Hingham Ferry Dock Modification	\$9,668,534	\$2,417,134	\$12,085,668
Natick Center Station Accessibility Project	\$1,960,034	\$490,009	\$2,450,043
Newton Highlands Green Line Station Accessibility Project	\$5,838,800	\$1,459,700	\$7,298,500
Oak Grove Station Vertical Transportation Improvements	\$12,800,000	\$3,200,000	\$16,000,000
Old South Meeting House Leak Repairs	\$1,108,000	\$277,000	\$1,385,000
Ruggles Station Upgrade - Accessibility (Design)	\$1,600,000	\$400,000	\$2,000,000
Silver Line Gateway - Phase 2	\$23,956,800	\$5,989,200	\$29,946,000
South Attleboro Station Station Improvements	\$3,580,654	\$895,164	\$4,475,818
Symphony Station Improvements	\$30,680,000	\$7,670,000	\$38,350,000
Winchester Center Station	\$27,878,601	\$6,969,650	\$34,848,251
TIP Program Allowance	\$14,683,290	\$3,670,823	\$18,354,113
	\$283,862,653	\$70,965,663	\$354,828,316

**5337 - Signals/Systems Upgrade Program**

	Federal Share	MBTA Match	Total
System-Wide Radio	\$56,000,000	\$14,000,000	\$70,000,000
Public Safety Improvements to System-Wide Radio	\$1,600,000	\$400,000	\$2,000,000
45 High Street - Data Center Upgrades	\$9,680,000	\$2,420,000	\$12,100,000
45 High Street - Facility/System Improvements	\$6,095,130	\$1,523,783	\$7,618,913
North Station Terminal Signal Improvements	\$28,480,000	\$7,120,000	\$35,600,000
Signal Program - Red/Orange Line	\$193,016,000	\$48,254,000	\$241,270,000
Infrastructure Asset Management Program	\$17,129,197	\$4,282,299	\$21,411,496
TIP Program Allowance	\$18,639,066	\$4,659,766	\$23,298,832
	\$330,639,393	\$82,659,848	\$413,299,241

**Section 5337 Totals**

<b>\$875,912,789</b>	<b>\$218,978,197</b>	<b>\$1,094,890,987</b>
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**Section 5339 - Bus & Bus Facilities**

**5339 - Bus Program**

	Federal Share	MBTA Match	Total
Overhaul of 32 Neoplan 60' DMA Buses - 5339	\$15,922,023	\$3,980,506	\$19,902,529
40-Foot Bus Procurement (Subject to Fleet Plan) - 5339	\$15,600,000	\$3,900,000	\$19,500,000
DMA Bus Replacement - Design (Subject to Fleet Plan)	\$4,000,000	\$1,000,000	\$5,000,000
Program Allowance	\$3,013,930	\$753,482	\$3,767,412
	\$38,535,953	\$9,633,988	\$48,169,941

**Section 5339 Totals**

<b>\$38,535,953</b>	<b>\$9,633,988</b>	<b>\$48,169,941</b>
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Note: Green highlighting indicates new projects proposed for addition to 5-year TIP timeframe, FFYs 2018-2022.

Table 4: Administrative Modification to the MBTA's FFY17 TIP -- For Boston MPO Informational Purposes  
FTA Grants Executed on September 5, 2017

**Revenue Vehicle Program Grant - 5307**

FTA Grant Project Name	Grant Amount	TIP Project Name	TIP Program	TIP FFY	FTA Prog.	TIP Amount	Administrative Modification
Bus Overhaul Program	\$59,756,725	New Flyer Light Overhaul	Revenue Vehicle	FY17	5307	\$14,079,462	N/A
		Overhaul of 155 Option New Flyer Buses	Revenue Vehicle	FY17	5307	\$42,214,181	N/A
		TIP Program Allowance (Bus Overhaul)	Revenue Vehicle	FY17	5307	\$1,463,082	N/A
Green Line #7 Car Selective Systems Overhaul	\$28,673,275	Green Line #7 Car Midlife Overhaul (86 units)	Revenue Vehicle	FY17	5307	\$28,673,275	N/A
Green Line #8 Car Reliability Improvements	\$46,570,000	Green Line #8 Car Reliability Improvements	Revenue Vehicle	FY17	5307	\$24,900,000	N/A
		Green Line #8 Car Reliability Improvements	Revenue Vehicle	FY17	5307	\$21,670,000	N/A
	\$134,999,999					\$133,000,000	
	(incl. 20% match)					(incl. 20% match)	

**Stations and Facilities Program Grant - 5307/5337**

FTA Grant Project Name	Grant Amount	TIP Project Name	TIP Program	TIP FFY	FTA Prog.	TIP Amount	Administrative Modification
Red Line Stations Project	\$96,099,976	Quincy Center Garage Demolition	Station/Facility	FY18-22	5337	\$41,459,024	Project accelerated; moved to FFY17
		Wollaston Station Improvements	Station/Facility	FY18-22	5337	\$58,649,976	Project accelerated; moved to FFY17
Commuter Rail Station Improvements	\$26,030,797	Mansfield Station Accessibility	Station/Facility	FY17	5307	\$11,286,359	N/A
		JFK/UMASS Station - Ped Ramps & Stair Repair	Station/Facility	FY17	5337	\$1,678,653	N/A
		Ruggles Station - Upgrades and Accessibility	Station/Facility	FY18-22	5337	\$8,500,000	Project accelerated; moved to FFY17
		Rockport Commuter Rail Layover Power Upgrade	System Upgrade	FY18-22	5337	\$5,566,957	Project accelerated; incl. in Stations/Facilities grant
Maintenance and Accessibility Improvements	\$26,497,689	Feasibility Study of Remaining Inaccessible Stations	Station/Facility	FY17	5307	\$13,200,000	N/A
		Cabot Maintenance Facility - PCB Remediation	Station/Facility	FY17	5337	\$9,286,015	N/A
		Riverside Car House Work Platforms	Station/Facility	FY17	5337	\$3,884,892	N/A
	\$148,628,463					\$153,511,876	
	(incl. 20% match)					(incl. 20% match)	

**Bridge Grant - 5337**

FTA Grant Project Name	Grant Amount	TIP Project Name	TIP Program	TIP FFY	FTA Prog.	TIP Amount	Administrative Modification
FY17 MBTA Supplementary Bridge Program	\$60,119,786	East Street Bridge Replacement Project	Bridge	FY17	5337	\$23,500,000	N/A
		Neponset River Lower Mills Bridge	Bridge	FY18-22	5337	\$5,435,977	NEPA clearance for 6 bridges a D/B "bridge bundling" contract delayed due to historic reviews. Replaced by these 3 bridges for FFY17 grant.
		Merrimack River Bridge	Bridge	FY18-22	5337	\$23,189,602	
		Gloucester Drawbridge	Bridge	FY18-22	5337	\$41,815,420	
	\$60,119,786					\$93,940,999	
	(incl. 20% match)					(incl. 20% match)	

**Grant Totals (Including 20% Match) \$343,748,248**

Note:

FTA grants are executed at the Program level, consistent with how the MBTA portion of the TIP is presented to and approved by the Boston MPO.

For informational purposes, the MBTA also provides a list of individual projects which are anticipated to be included within each FTA Program, with an estimated cost. The table above shows each project included within the FTA grants.

All of these projects were included as supporting backup in either the FFY17 TIP or the FFY18-22 TIP.

The MBTA has utilized an "administrative modification" of the TIP in order to include several projects from the FY18-22 TIP within an FFY17 FTA grant. These are identified in the table above.