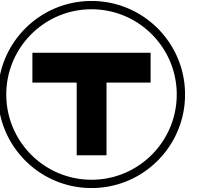


**Massachusetts Bay  
Transportation Authority**

## **Better Bus Project Update**

FMCB, June 24, 2019

**Better Bus Project.**

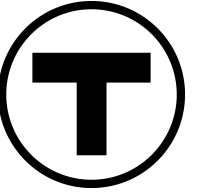


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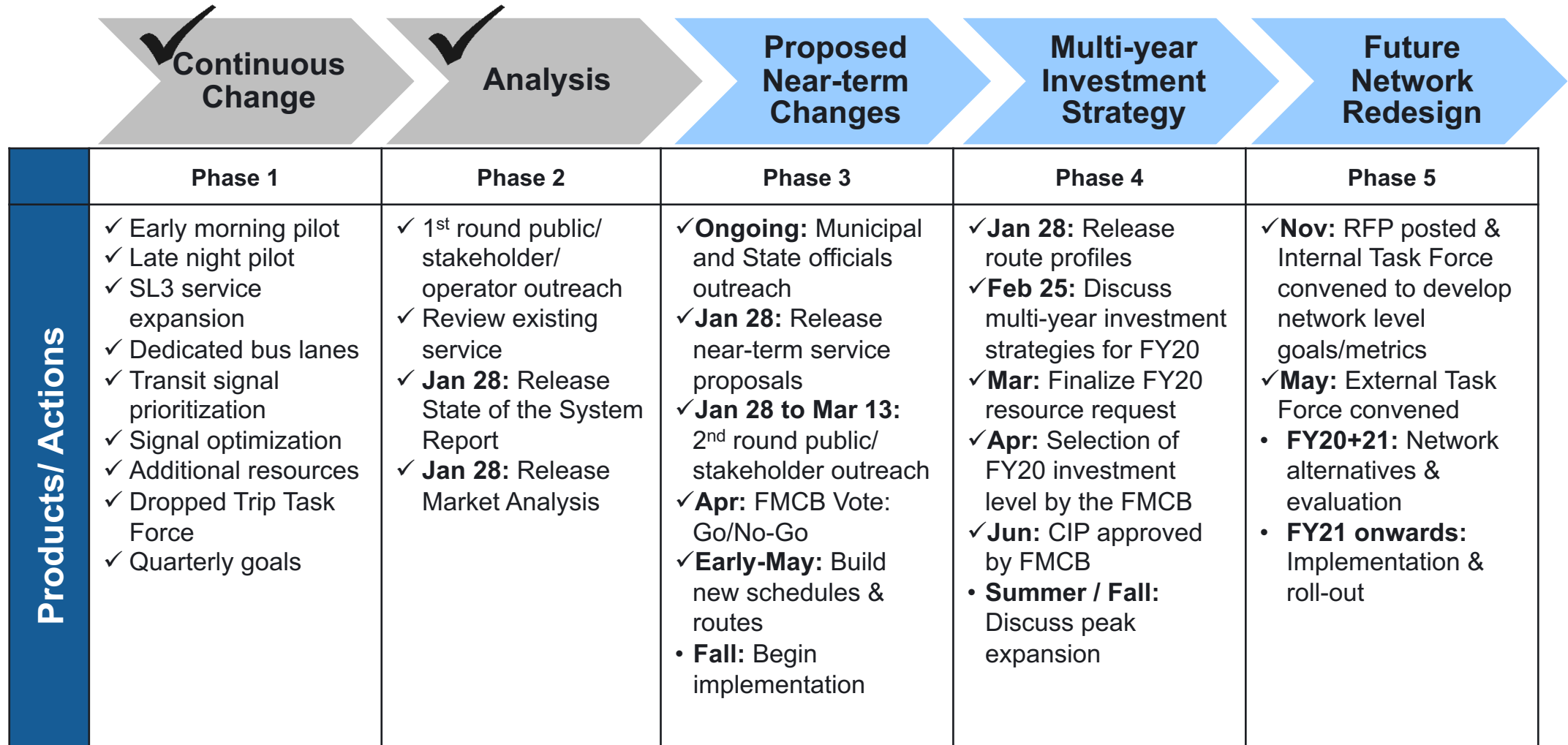
## Today's objectives

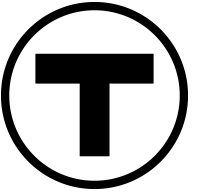
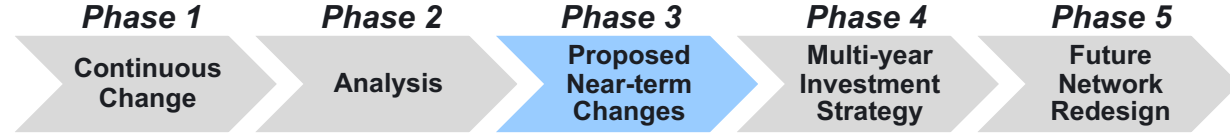
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- Provide **status update** on implementation of **36 Cost Neutral Near-Term Changes** and 45 additional Operators
- **Discuss communication plan** for implementation of Near-Term changes
- Provide **status update** on implementation of **bus priority infrastructure** and highlight criticality of this work as part of a better bus system



# Better Bus Project Process Map: Update





# Plan for Fall implementation of Better Bus Project – to go into effect September 1st

CT1/1*	4	5/16	44
59	89	90	92
95	106	111	120
134	411	424	428
435	455/459	441/442/ 448/449	501/502/ 503/504

**Target Implementation in Fall 2019**

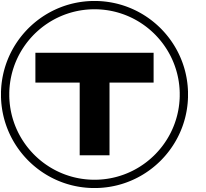
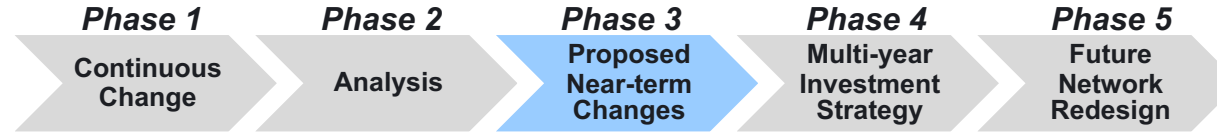
Add 35	36
37	52
64	70/70A
72/74/75	201/202
220	222
225	

**Target Implementation in Winter 2019-2020**

SL2
9
34/34E
60
350

**Implement After Resolving Contingency**

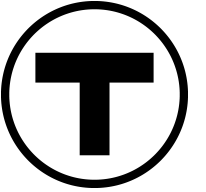
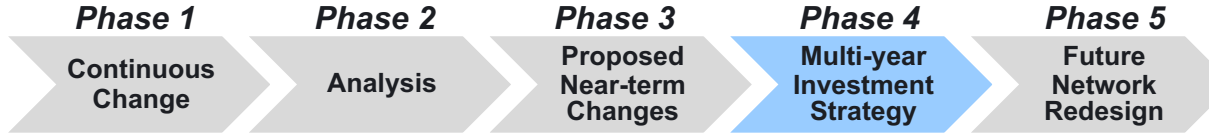
\* Some proposals are going partially into effect in Fall and will be completed in Winter contingent on municipal coordination; For example, the CT1 and 1 will be combined in Fall, but the Dunster Street loop will not be



## Communication and roll-out plan (Fall 2019)

**Due to level of change, significant coordination effort across multiple departments and stakeholders will be implemented this fall**

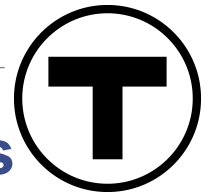
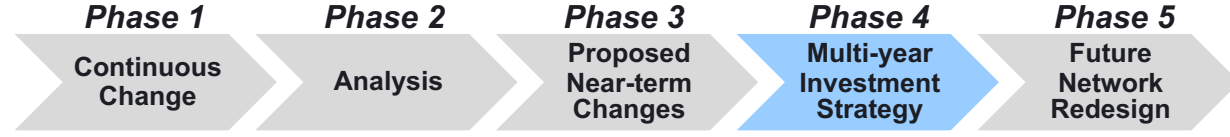
	Typical service change	Better Bus Implementation
<b>System-wide</b>	<ul style="list-style-type: none"> <li>Updated system-wide map (digital)</li> </ul>	<ul style="list-style-type: none"> <li>Updated Better Bus Project website</li> <li>Digital ads and car cards</li> <li>Legislative and municipal outreach</li> <li>Updated system-wide map (digital)</li> <li>Complementary foreign language communications</li> </ul>
<b>Route-specific</b>	<ul style="list-style-type: none"> <li>T-Alerts</li> <li>Bus Operator training</li> <li>Updated schedule cards</li> </ul>	<ul style="list-style-type: none"> <li>Email blasts (<i>in partnership with municipalities and other partners</i>)</li> <li>T-Alerts</li> <li>In-vehicle announcements</li> <li>Bus Operator training/engagement</li> <li>Updated schedule cards</li> </ul>
<b>Stop-specific</b>	<ul style="list-style-type: none"> <li>Notifications at affected stops 2 weeks prior</li> </ul>	<ul style="list-style-type: none"> <li>~20 new stops, ~80 removed stops</li> <li>~700 stops w/ changed service</li> <li>Notifications at affected stops 4 weeks prior</li> </ul>



# Better Bus Project Multi-Year Investment Schedule (high-level)

INVESTMENT	FY19	FY20	FY21	FY22+
<b>Bus Lanes</b>	3.5 miles built	Goal of 7 high-priority corridor miles	Goal of 7 high-priority corridor miles	Connect completed key corridors
<b>TSP + Queue Jumps + Bus Bumps</b>	Concurrent with bus lane corridors			Concurrent and beyond bus lane corridors
<b>Bus Stop Infrastructure</b>	Planning for shelter contract & PATI stop improvements	Procure new shelter contract & begin PATI construction	Continue construction of stop improvements & 1,000 PATI stops	
<b>Peoplepower</b>	Invest in additional operators (~70)	Hire off-peak operators	Hire additional operators	Hire additional operators
<b>Buses</b>	-	Procure expansion contract	Support peak service	New maintenance garage(s) & delivery of new buses
<b>Scheduling &amp; Dispatching tools</b>	Workforce Modernization Program, Bus Dispatching Pilot		Additional Optimization	
<b>Pilots &amp; Route Changes</b>	47 Near-Term Proposals	Continuous improvement via piloting and route changes – targeting at least 5-10/year		
<b>Network Redesign</b>	Procure & Begin Design	Design	Implementation (FY21 onwards)	





# Median bus run times 17% longer during Peak periods over past 12 years

Median bus run-times systemwide (minutes)

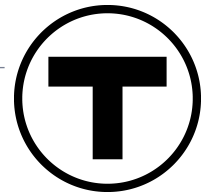
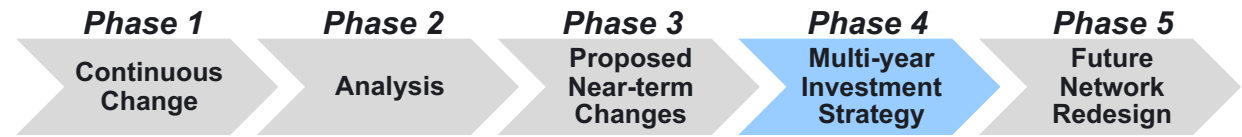


- **Bus riders have longer trips:** The median weekday trip\* is 11% longer but **17% longer during peak**
- **Bus riders have lost certainty about the length of their daily commute:** MBTA has added 13% more layover time to help buses start on time (in response to increased variation)

Note: Data shown is average weekday schedule summary system-wide, Sept – Oct for each calendar year

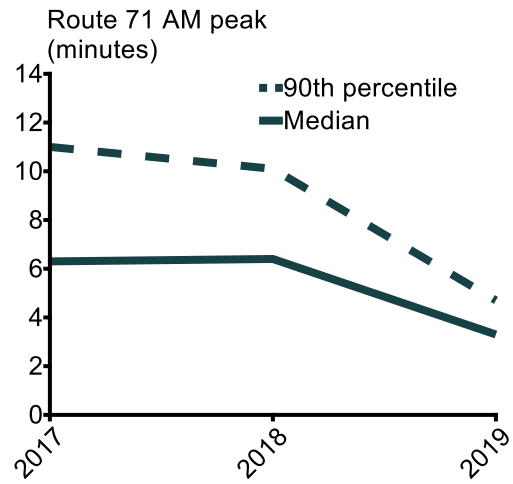
\*\*A trip refers to the origin/destination of a bus, not a passenger

Source: HASTUS



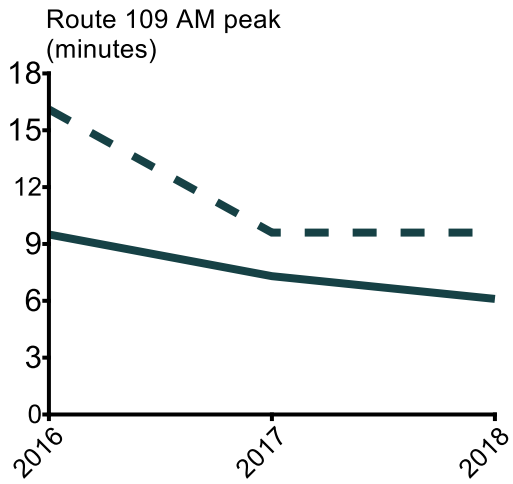
# 3 examples of bus priority infrastructure and impacts on customers

## Mt. Auburn (Cambridge) Routes 71 & 73



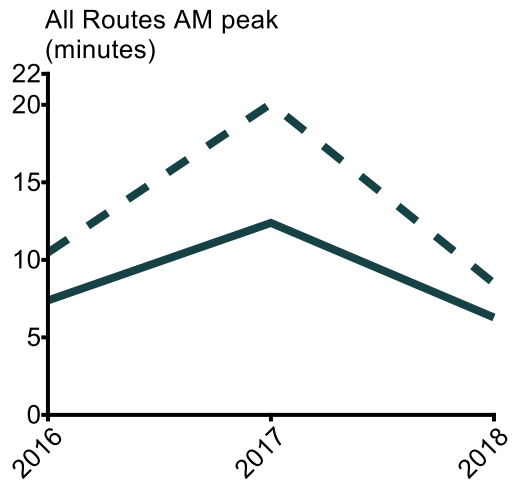
- Up to **5 minutes saved per trip** versus 2017
- **50% reduction** in variability versus 2017

## Broadway (Everett) Routes 97, 104, 109, 110 & 112



- Up to **7 minutes saved per trip** versus 2016
- **40% reduction** in variability versus 2016

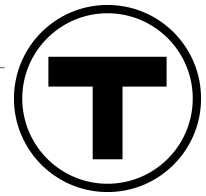
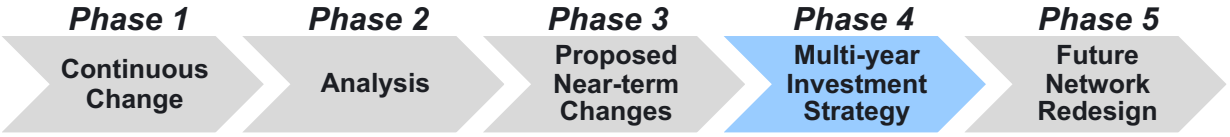
## Washington St. (Boston) Routes 30, 34, 34E, 35, 36, 37, 40, 50, & 51



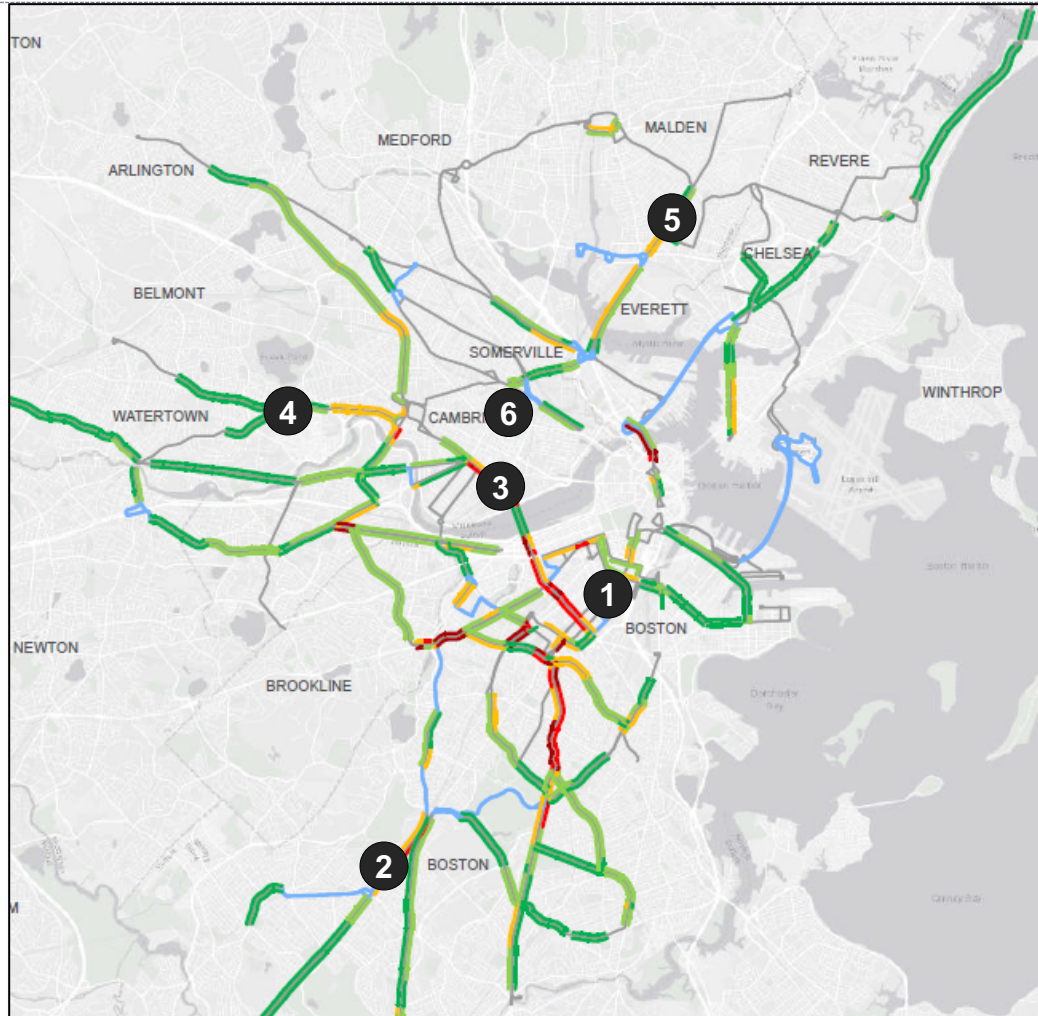
- Up to **2-3 minutes saved per trip** versus 2016
- **10% reduction** in variability versus 2016

**Bus priority reduces travel times and makes trips more reliable**





# Bus Priority Investments, Before January 2019

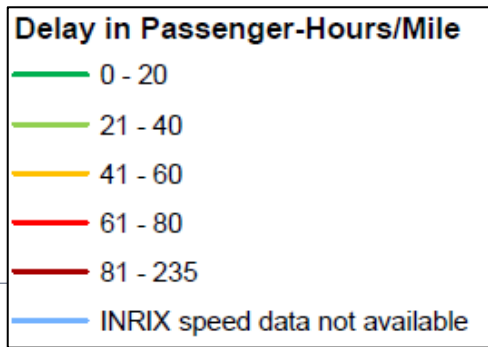


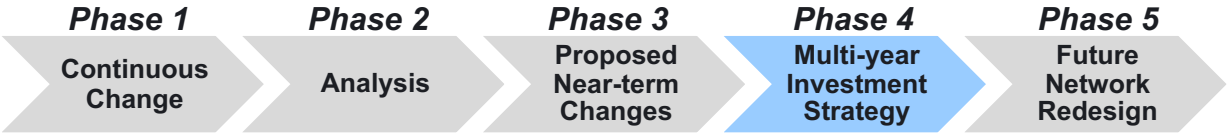
**~7 Miles Constructed**

## Pre-2019 Bus Lane Investments Include (minutes saved at 90<sup>th</sup> percentile):

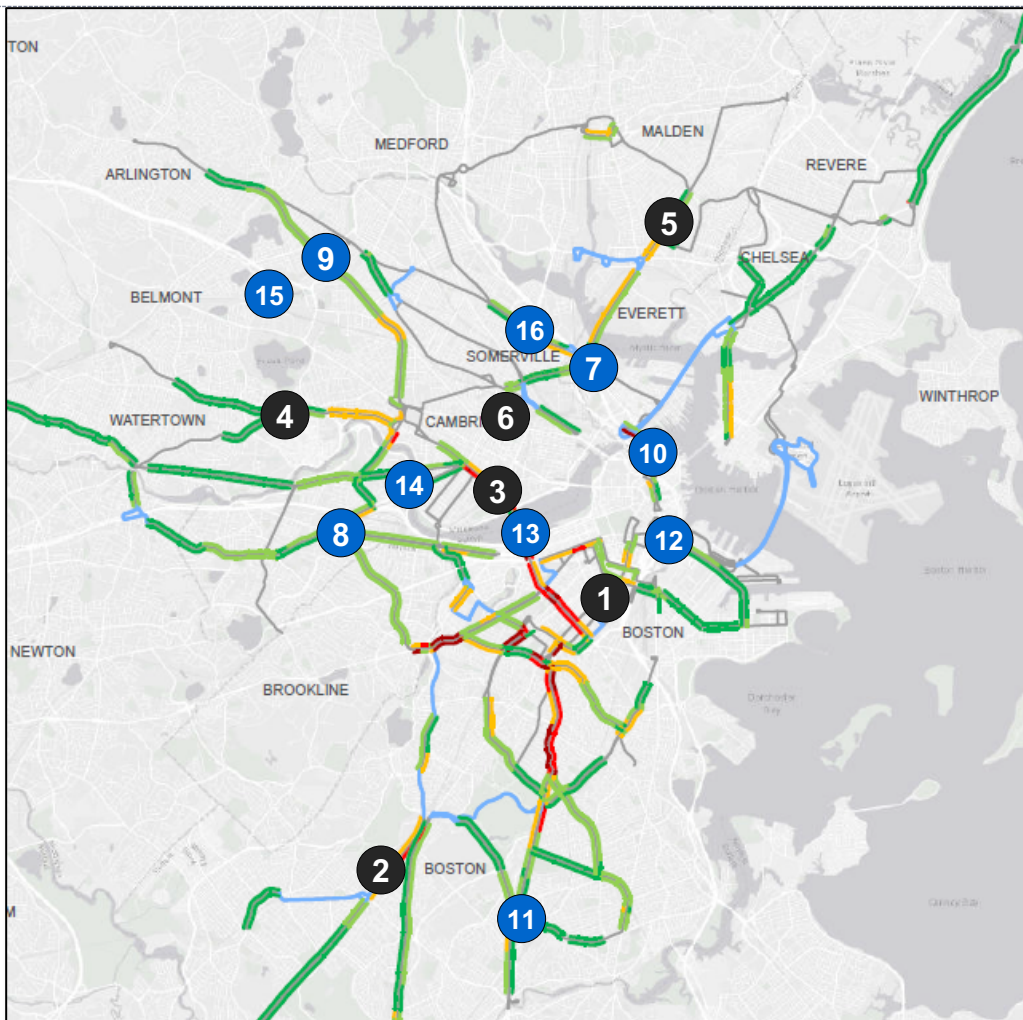
- ① Boston: Essex/Washington St (Silver Line)\* (N/A)
- ② Boston: Washington St. (Roslindale)\* (2-3 min)
- ③ Cambridge: South Mass Ave (under review)
- ④ Cambridge: Mt. Auburn St. (5 min)
- ⑤ Everett: Broadway (7 min)
- ⑥ Somerville: Prospect St. (6-10 min)

*\*MBTA/MassDOT provided financial support*





# 2019 Bus Priority Investments



## Completed since Jan. 1, 2019:

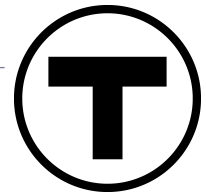
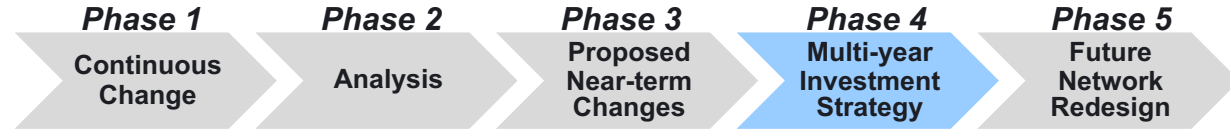
- 7 Boston/MBTA: Sullivan Sq.\*
- 8 Boston: Brighton Ave.\*

## Planned in 2019:

- 9 Arlington: Mass Ave.\*
- 10 Boston: N. Washington St.\*
- 11 Boston/MassDOT: Morton St.\*
- 12 Boston: Summer St.\*
- 13 Boston/Cambridge/MassDOT/DCR: Mass Ave Bridge\*
- 14 Boston/MassDOT/DCR: Soldiers Field Rd.\*
- 15 Cambridge/MassDOT: Alewife access ramp\*
- 16 Somerville: Broadway

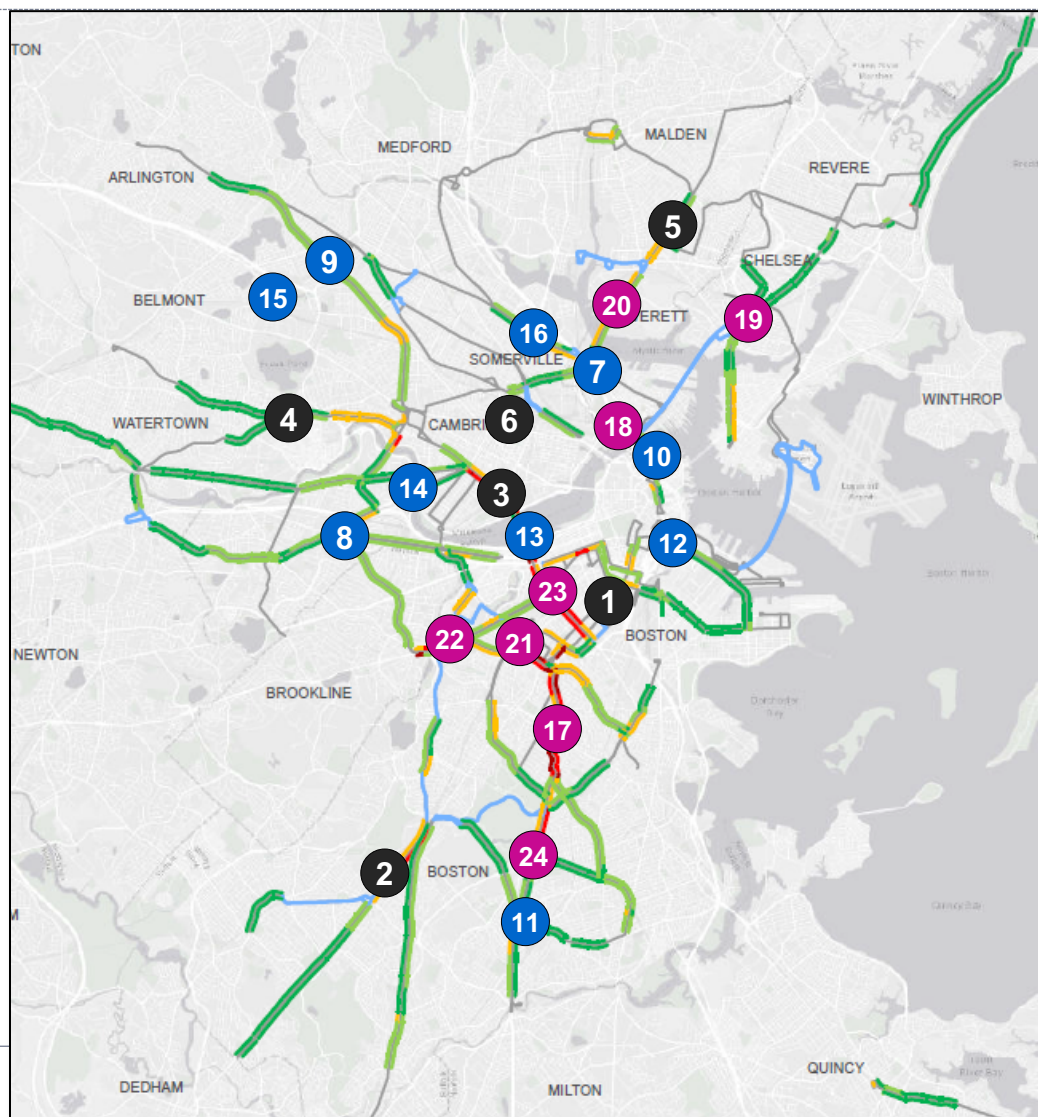
**3 - 4 Additional Miles Planned for 2019**

\*MBTA/MassDOT provided financial support



# Future Bus Priority Investments

In addition to these bus lane investments, the MBTA will continue to invest in other bus priority technology, such as Transit Signal Priority.

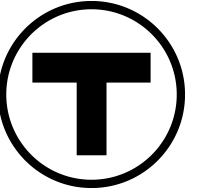


## In Planning for 2020+:

- 17 Boston: Warren St.
- 18 Boston: N. Washington Bridge
- 19 Chelsea: Broadway
- 20 Everett: Broadway (cont.)

## Other MBTA High Priority Corridors:

- 21 Boston: Tremont St.
- 22 Boston: Huntington Ave.
- 23 Boston: Mass Ave.
- 24 Boston: Blue Hill Ave.

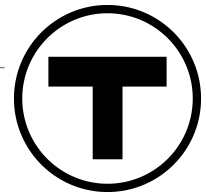
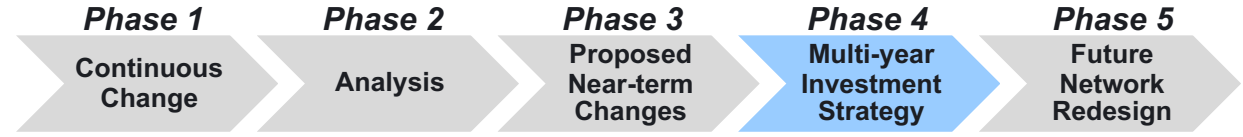


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## Next Steps

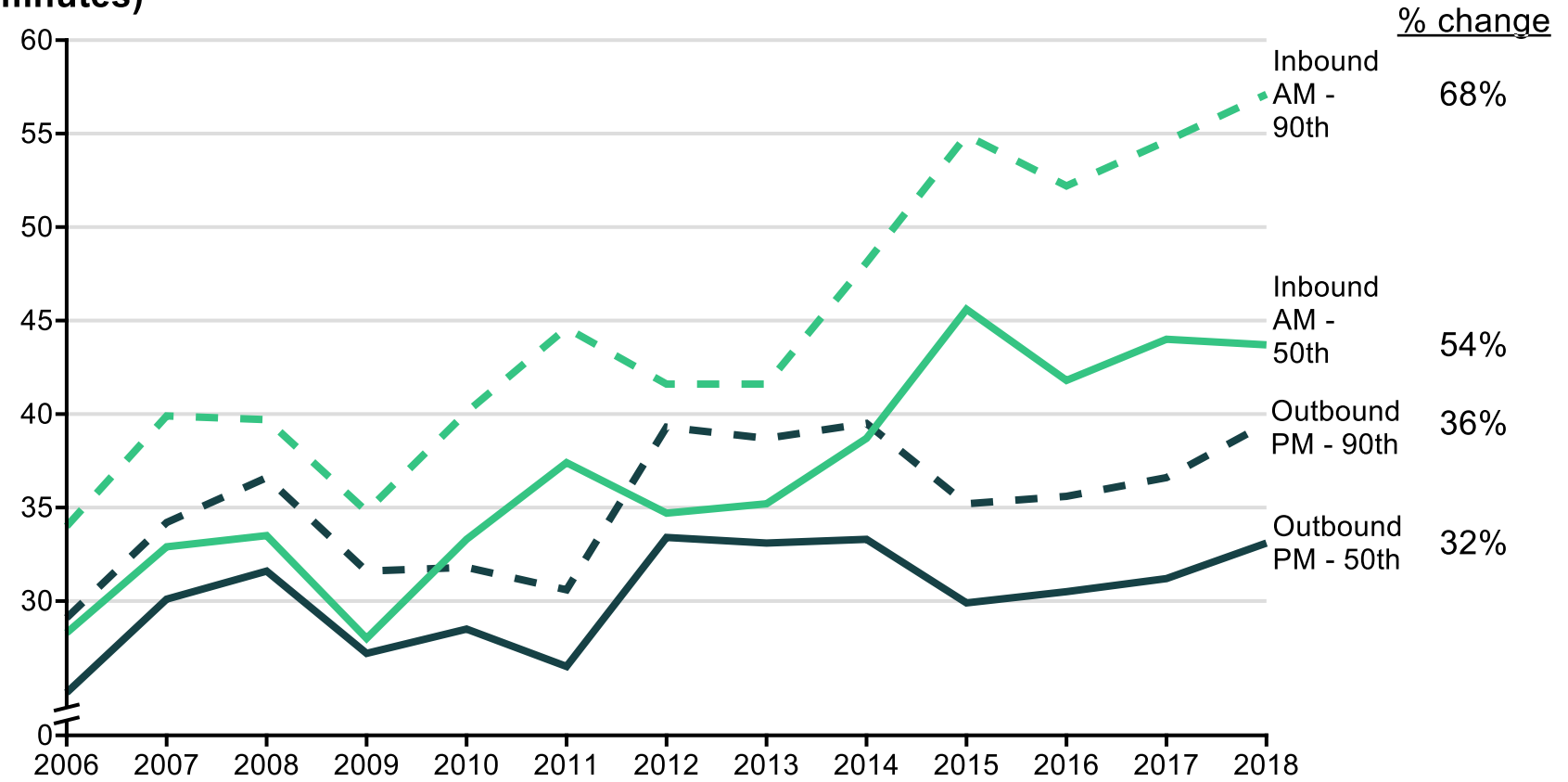
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- **Hiring a Transit Priority team** to focus specifically on design and municipal engagement for on-street infrastructure (including bus lanes)
- **Continuing focus on working with municipalities** to identify, design, and implement bus priority infrastructure
- **\$8.7M approved in FY20–FY24 CIP** to help fund, design, and implement bus priority infrastructure in high-priority areas
- Implementing first wave of **36 Near Term proposals** and **additional bus operators** this Fall

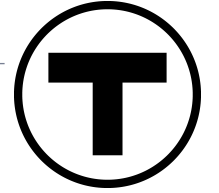


# Appendix: Individual routes impacted differently compared to system-wide (e.g. Route 111)

### Median & 90th percentile run-times Route 111 (minutes)



Note: Data shown is average weekday schedule summary, systemwide  
Source: HASTUS



## Appendix: MBTA Existing and Planned Bus Priority Corridors

### Completed and Near-Term Investments

#### Completed Prior to 2019:

- Boston: Essex/Washington St. (Silver Line)
- Boston: Washington St. (Roslindale)
- Cambridge: South Mass Ave.
- Cambridge: Mt. Auburn St.
- Everett: Broadway
- Somerville: Prospect St.

#### Completed in 2019:

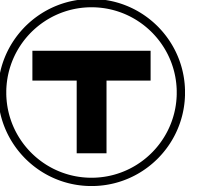
- Boston/MBTA: Sullivan Sq. Access
- Boston: Brighton Ave.

#### Planned for 2019:

- Arlington: Mass Ave.
- Boston: N. Washington St.
- Boston/MassDOT: Morton St.
- Boston: Summer St.
- Boston/Cambridge/MassDOT/DCR: Mass Ave. Bridge
- Boston/MassDOT/DCR: Soldiers Field Rd.
- Cambridge/MassDOT: Alewife Access Ramp
- Somerville: Broadway

### Longer-Term Investments

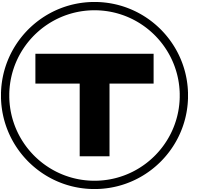
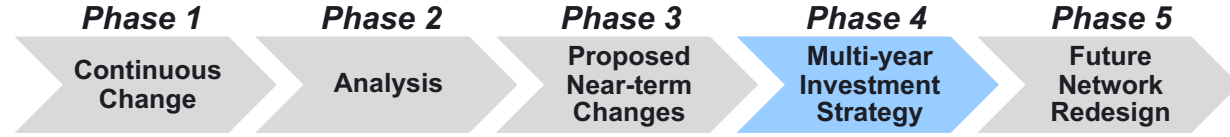
- Boston: Warren St.
- Boston: N. Washington Bridge
- Chelsea: Broadway
- Everett: Broadway (cont'd)
- Boston: Tremont St.
- Boston: Huntington Ave.
- Boston: Mass Ave.
- Boston: Blue Hill Ave.



## Appendix: All-Day Eastbound Brighton Ave. Bus Lane Announced



- In collaboration with the City of Boston, a permanent all-day eastbound bus lane will be installed on Brighton Ave.
- Between Cambridge St. in Union Sq. and Comm. Ave. in Packards Corner
- Painting/installation of the bus lane started week of June 10<sup>th</sup>
- Expected to reduce travel times for MBTA bus riders by 30-40%
- Will be a shared-use bus/bike lane, allowing bicycles to travel in the lane, separated from general traffic



# Appendix: Top 40 Bus Routes

**Highest Ridership Routes / Corridors Definition: >3,200 daily weekday riders**

<b>Key Bus Routes (14)</b>	1	28	66	111		
	15	32	71	116/117		
	22	39	73	*		
	23	57/57A*	77			
<b>Silver Line (5)</b>	SL1	SL3	SL5			
	SL2	SL4				
<b>Local Routes w/ highest ridership (21)</b>	7	31	47	88	104	441/442*
	9	34/34E*	70/70A*	89	109	
	16	35/36/37*	86	93	110	
	21	44	87	101	220/221/222*	

Note: \* Refers to corridor created by overlapping routes which have very high ridership when taken together; Daily weekday ridership determined via APC counts