

# Building a Better



Fiscal and Management Control Board (FMCB)  
Capital Programs  
February 10, 2020

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# Results for Our Riders | Our 2020 Work




**Our 2020 work will get results to riders even sooner, delivering a better, safer and more reliable system**  
By the end of 2020 we will deliver...



## Fewer Delays

by addressing 29 miles of track






-  B, C, D, & E Branch Track Upgrades
-  Harvard – Alewife Floating Slabs
-  Franklin Double Track



## A Safer Journey

by upgrading 14 intersections and leak mitigation in three tunnels







-  B, C, & E Branch Track Upgrades
-  Tunnel Infrastructure Improvement
-  Courthouse Station Leak Remediation



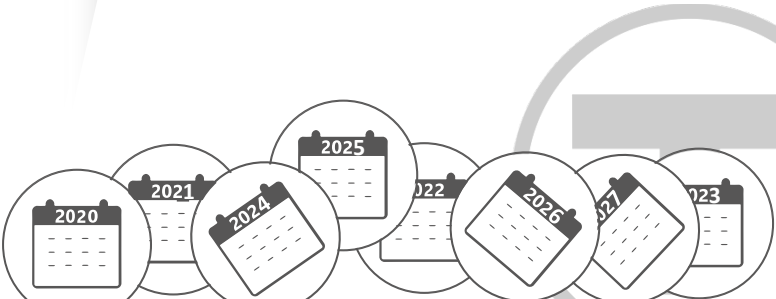
## Improved Stations

by upgrading parking, signage escalators and elevators (10 stations)





-  Wayfinding & Brightening
-  South Shore Garages
-  Central & Ruggles Elevators
-  Oak Grove Escalators




Through **full weekday & weekend closures** we will complete **8 years of work** in **one year**



# The System | Overview of MBTA Infrastructure

MBTA transit & commuter rail systems require upgrades to track, signals, vehicles, and stations to improve **safety** and **quality of service** for riders

 <p>Systemwide</p>	<ul style="list-style-type: none"> <li>2 Light Rail Transit Lines (GL, Mattapan)</li> <li>3 Heavy Rail Transit Lines (RL, OL, BL)</li> <li>13 Commuter Rail Lines</li> </ul>	 <p><b>~4,889,280</b> Feet of Track (926 miles)</p>	 <p><b>30+ Years</b> Average Age of Track</p>	 <p><b>267</b> Transit Stations <i>(including Silver Line)</i></p>	 <p><b>1.23M</b> Trips Each Day <i>(All modes, October 2019)</i></p>
 <p>Green Line B C D E</p>	<p>Light Rail (2-car trains)</p> 	<p><b>242,600</b> Feet of Track (46 miles)</p>	<p><b>30</b> Years</p>	<p><b>66</b> Stations <i>53 at surface level</i></p>	<p><b>150k</b> Trips Each Day</p>
 <p>Red Line</p>	<p>Rapid Transit (6-car trains) Light Rail (Mattapan trolley)</p> 	<p><b>257,600</b> Feet of Track (50 miles, +Mattapan)</p>	<p><b>31</b> Years</p>	<p><b>22</b> Stations <i>+8 on Mattapan</i></p>	<p><b>240k</b> Trips Each Day</p>
 <p>Orange Line</p>	<p>Rapid Transit (6-car trains)</p> 	<p><b>121,400</b> Feet of Track (23 miles)</p>	<p><b>38</b> Years</p>	<p><b>20</b> Stations</p>	<p><b>210k</b> Trips Each Day</p>
 <p>Blue Line</p>	<p>Rapid Transit (6-car trains)</p> 	<p><b>63,360</b> Feet of Track (12 miles)</p>	<p><b>23</b> Years</p>	<p><b>12</b> Stations</p>	<p><b>80k</b> Trips Each Day</p>
 <p>Commuter Rail</p>	<p>Commuter Rail Coaches (varying lengths)</p> 	<p><b>4,202,880</b> Feet of Track (796 miles)</p>	<p><b>30+</b> Years</p>	<p><b>139</b> Commuter Rail Stations</p>	<p><b>120k</b> Trips Each Day</p>

   Other modes: Bus, Silver Line and Ferry

Age of track is only one factor in determining replacement priority; in addition, track condition is assessed through regular inspections and testing

# Providing Assurance | A Focus on Safety & Quality

*When taking track out of service, we will ensure **quality** with continued focus on the **safety** of our employees and riders*

### 1. Safety

Assuring a **safer** & improved rider experience after closures is at the core of our philosophy

### 2. Planning

Extensive **planning** and **coordination** to:

- Complete more work in less time
- Minimize disruptions to riders
- Identify & mitigate risks

### 3. Inspection

- **Before:** Independent condition assessment of deficiencies, safety issues
- **During:** Spot checks performed in-house and by contractors
- **After:** Inspections to **verify** work progress, quality and **safety**

### 4. Continuous Improvement

Ongoing communication with internal and external stakeholders:

- Keeping riders up-to-date about service disruptions
- Capturing feedback from riders about their experience

### 5. Quality

Improved assurance of **Quality of Work** during construction will be reflected in improved **Quality of Service** provided by the MBTA

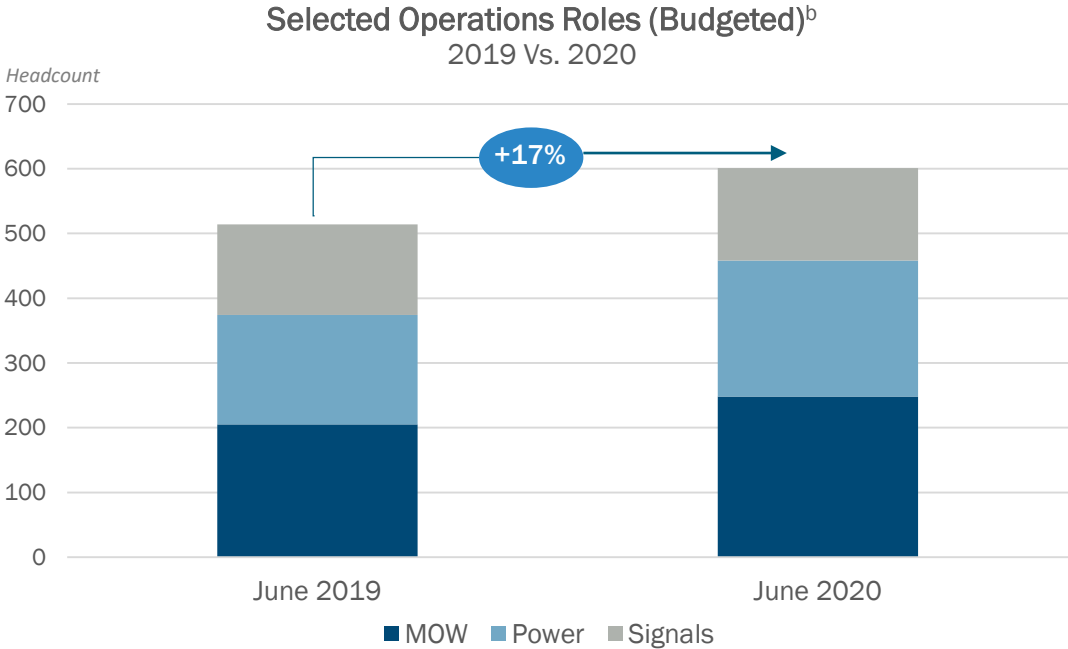


# Staffing Plan | Service Delivery & Capital Projects

MBTA hiring for key Operations roles to support ongoing work and 2020 Capital Acceleration

**Targeting ~20% year over year increase in Operations staff to support Capital by Summer 2020<sup>a</sup>**

**2020 goals build upon efforts already underway**



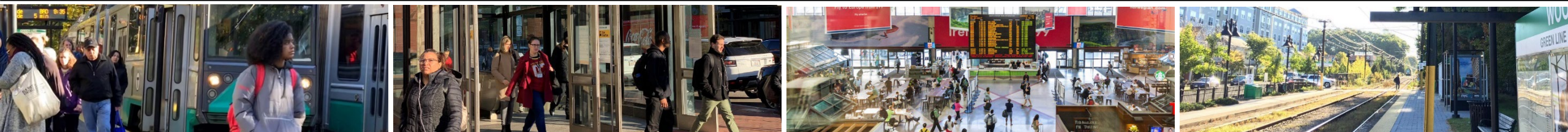
- Building larger Operations workforce to **ensure safety** and service quality, the MBTA’s highest priorities
- Improvements in hiring capabilities have led to an **increased capacity** to deliver on preventative maintenance inspections, and capital acceleration projects
- Key 2019 accomplishments include **filling nearly 100 vacancies in Engineering and Maintenance**
- MBTA has engaged specialized, **third-party hiring firm** to augment MBTA team and deliver on accelerated hiring goals

(a) June 2020 target based off Operations budgeted hiring goals, excludes executive or supervisory roles, assumes 10% attrition rate.  
(b) Includes line repairers, wirepersons, forepersons, engineers, and trackpersons / laborers





# What We Accomplished | 2019



**Increased the speed of execution for critical infrastructure** improvements and used weekend station closures to accelerate work, **completing 12,617 feet (2.4 miles) of track**. Compressed project schedules resulted in:

### Direct Service & Safety Improvements Accelerated in 2019

Green Line

GL

- 10 intersections upgraded through four weekend diversions originally scheduled for 2020. Timeline condensed by five months (30 intersections total)
- Added 8,480 feet of track replacement

Red Line

RL

- Station brightening and wayfinding at Park Street and Downtown Crossing (DTX) stations through four weekend diversions. Park Street timeline condensed by four months, and DTX by twelve months
- Added 1,759 feet of track replacement
- Completed Harvard Station Elevator project

Orange Line

OL

- Station brightening and wayfinding at DTX, Haymarket, and State Street stations through six weekend diversions, condensed the project timeline by eleven months
- Added 2,378 feet of track replacement, and cleaning & painting at Chinatown Station

### Leveraged Access to Amplify Results

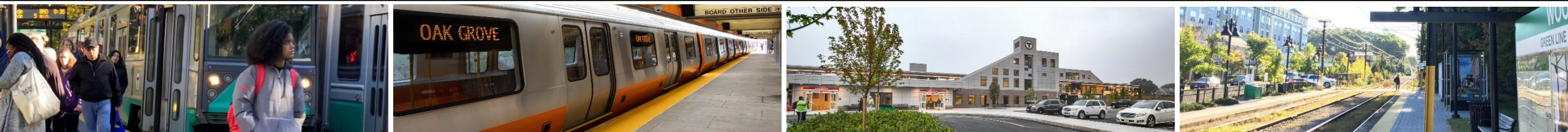
- Conducted inspections
- Made station and tunnel repairs
- Overhauled fare gates
- Repaired flooring
- Installed fiber optic signal cable

### Enhanced Customer Communications

- Service impacts communicated with digital in-station displays, updates via email, text alerts and web site, robust social media, shuttle signage, and customer service agents in stations
- Shared details on planned weekend work with an inside look at work completed on weekends and overnight









# What We Accomplished | 2019



**Beyond the work that was accelerated, the MBTA advanced other major projects in 2019**

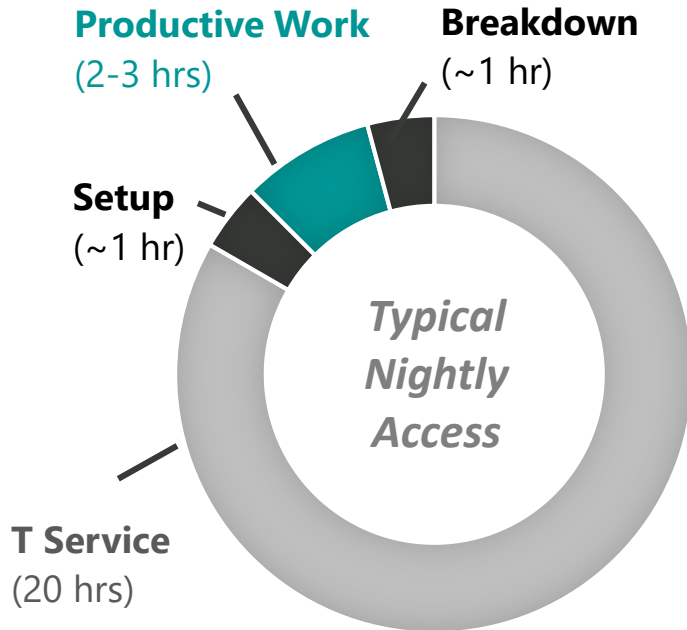
*Investments spanned across all MBTA lines to improve **safety** and **quality of service** for riders*

 <b>Green Line</b>	 <b>Red Line</b>	 <b>Orange Line</b>	 <b>Commuter Rail</b>	 <b>Silver Line &amp; Systemwide</b>
<p><i>Deployed first Type 9 light rail vehicles</i></p>	<p><i>Delivered Red Line pilot car</i></p>	<p><i>Deployed two production vehicles into service</i></p>	<p><i>Replaced East St. Bridge, Westwood</i></p>	<p><i>Improved 60 bus stops</i></p>
<p><i>Completed Type 7 vehicles overhaul</i></p>	<p><i>Restored Columbia Junction signal system</i></p>	<p><i>Constructed a new busway, canopy, and headhouse at Forest Hills Station</i></p>	<p><i>Replaced Guild St. Bridge, Norwood</i></p>	<p> <b>Blue Line</b></p>
<p><i>Conducted pilot for solar-powered e-ink real-time displays</i></p>	<p><i>Opened new Wollaston Station</i></p>	<p><i>Repaved Oak Grove Station parking lot and busway</i></p>	<p><i>Opened new Blue Hill Ave. Station (Fairmount Line)</i></p>	<p><i>Overhauled No. 5 rail vehicles</i></p>
<p><i>Upgraded intersections on B and C Branches</i></p>	<p><i>Replaced elevators at Quincy Center (1), Andrew (3), Harvard (1), Downtown Crossing (2), &amp; Alewife (1)</i></p>	<p><i>Rehabilitated track from Sullivan to Community College, and Oak Grove to Wellington</i></p>	<p><i>Overhauled Kawasaki Coaches</i></p>	<p><i>Rehabilitated 4000 ft of track</i></p>
		<p><i>Replaced elevators at Tufts (3)</i></p>	<p><i>Revamped North Station passageway</i></p>	
			<p><i>Knowledge Corridor Station Expansions</i></p>	



# The Challenge | Getting Time to Perform Work

*Typical nightly access after service hours does not provide enough time to **complete complex work***



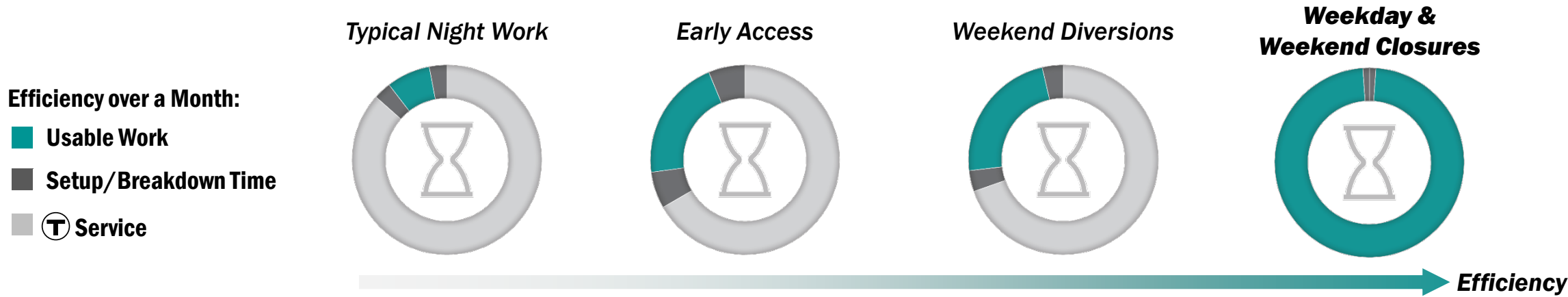
- Service operates **20** out of **24** hours every day
- Normal track maintenance windows, including setup and breakdown, result in **2 - 3 hours of productive work**
- **Complex repairs** (with de-energized work zones) require longer work windows
- 2020 SICAP approach enables rehabilitation of the system on an **accelerated basis**





# The Solution | Maximizing Productivity & Safety

**Full weekday & weekend closure** that eliminates **repeated setup/breakdown time**, resulting in greater **efficiency** and improved **safety**

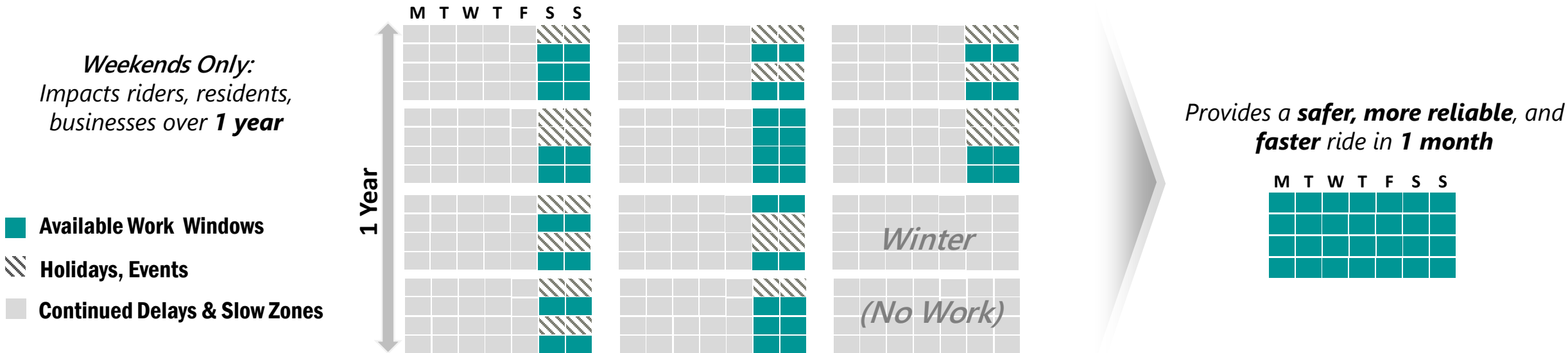


<b>Reactive &amp; Urgent Repairs</b>	✓	✓	✓	✓
<b>Station Painting &amp; Stair Repair</b>		✓	✓	✓
<b>Small-Scale Track Rehab</b> <i>(e.g. Single Grade Crossings)</i>			✓	✓
<b>Large-Scale Track Rehab</b> <i>(e.g. 1 Mile of Continuously-Welded Rail)</i>				✓
<b>Major Systems Rehab</b> <i>(Catenary, Signals)</i>				✓



# New Approach | Full Weekend & Weekday Closures

A **28-day full weekday & weekend closure** would replace **1 year** of delays, slow zones, and weekend diversions by improving work site **safety**, allowing complex work to be done more **efficiently**, and leveraging access for concurrent work



**1 Year, Non-Stop Night Work**  
(Work Scope Limited)

**20 Weeks of Early Access (Mon-Fri)**  
(Work Scope Limited)

**18 - 20 Weekend Diversions** spread over 1 year

=
















**28-day full weekday & weekend closure**

A 28-day closure is **more efficient than 1 year** of diversions or night work



# 2020 Plan | Overview

Our 2020 work will deliver improved **safety, reliability**, and **quality of service** to our riders even sooner

Services	Rider Benefits	Track Rehab & Construction 	Safety & Infrastructure Upgrades 	Delivering Results Sooner 
Green Line 	<b>Better walking, biking &amp; driving over tracks</b> <b>Reduced delays &amp; slow zones (speed restrictions)</b>	<b>10.8 miles (24%)</b> 57,230 ft - 24% of Green Line	Upgrade 14 Intersections (26% of GL) Rehabilitate Lechmere Viaduct	<b>760</b> days saved 
Red Line 	<b>Improved access at Braintree &amp; Quincy Stations</b> <b>Reduced delays &amp; slow zones (speed restrictions)</b>	<b>6.1 miles (14%)</b> 32,032 ft - 14% of Red Line	Revamp garages at Braintree, Quincy Track replacement in the tunnels Patch tunnel leaks at Alewife - Harvard	<b>490</b> days saved 
Orange Line 	<b>Improved access at Oak Grove</b> <b>Reduced delays from improved train yard</b>	<b>3.5 miles</b> 18,400 ft of maintenance track	Modernize three escalators (Oak Grove) Rebuild Power Substation	<b>180</b> days saved 
Blue Line 	<b>Reduced delays &amp; slow zones (speed restrictions)</b>	<b>0.5 mile (5%)</b> Up to 2,500 ft - 5% of Blue Line	Waterproof and clean tunnels Track replacement in the tunnels	<b>760</b> days saved 
Commuter Rail 	<b>Increased on-time performance (Franklin Line)</b> <b>Prep for future increase to train frequency</b>	<b>7.4 miles (25%)</b> 39,000 ft added to Franklin Line	Accelerate buying 80 bi-level coaches Upgrade crossover in Melrose	<b>180</b> days saved 
Silver Line 	<b>Better driving surface provides smoother ride</b>	N/A	Waterproof tunnels to reduce future leaking	<b>480</b> days saved 
<b>Total</b>		<b>29 Miles</b> 151,662 ft of Track	<b>Infrastructure improvements across all MBTA surface transportation</b>	<b>~8 years saved</b>

\*Time saved can be reinvested into the system to amplify acceleration impact

# Building a Better **T** | Green Line 2020

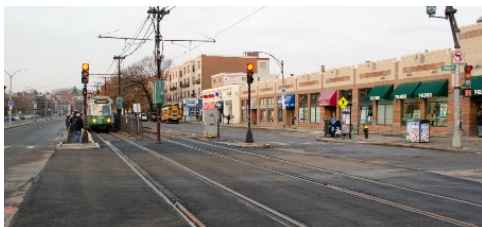
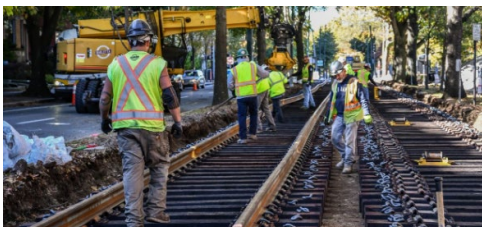
**Legend**

- Night/Weekend Work
- Continuous Closure
- ➔ Project Duration Past 2020

**760**  
Days  
Saved

**50,000+**  
Riders  
Impacted

Impacts residents, local schools, universities and businesses in **Newton**, **Brookline** and **Boston**. Overlaps with 2020 Boston Red Sox season



Replace 10.8 miles of track  
24% of the Green Line

**B C D E**

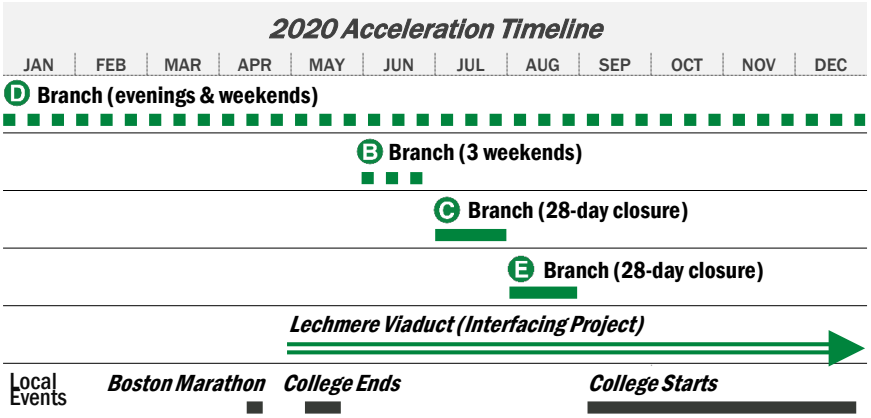
Upgrade 14 intersections  
26% of the Green Line

**B C E**

Repair Lechmere Viaduct  
More future train frequency

**E GLX**

<b>Benefits</b>	<ul style="list-style-type: none"> <li>🛡️ Improve safety by reducing average track age to below 25 years</li> <li>🕒 Eliminate slow zones (speed restrictions) by addressing track conditions</li> <li>♿ Improved walking, biking, driving across <b>14 intersections</b> over Green Line track</li> </ul>
<b>Service Impact</b>	<ul style="list-style-type: none"> <li>• Weekday Early Access: <b>D</b></li> <li>• Weekends: <b>B D</b></li> <li>• 28-day full closure: <b>C E</b> (affects 7,600 C and 14,000 E riders)</li> <li>• Shutdown: Lechmere &amp; Sci Park (11 mo) <b>E</b></li> </ul> <p><b>Schedule Considerations:</b> Red Sox games, Boston Marathon, university/college commencements &amp; move-in days</p>
<b>Alternative Service</b>	<ul style="list-style-type: none"> <li>🚌 Shuttle buses provided for B, C, D service interruptions (15-20 min extra travel time)</li> <li>E Branch: Shuttle buses + Enhanced Bus Route 39 (Heath and Prudential)</li> <li>E Branch: Shuttle buses (Lechmere and North Station)</li> </ul>



# Building a Better **T** | Red Line 2020

**Legend**

- Night/Weekend Work
- Continuous Closure
- ➔ Project Duration Past 2020

**490**  
Days Saved

**62,175+**  
Riders Impacted

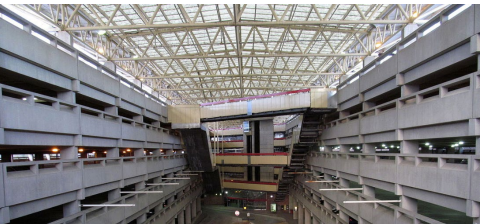
Residents, local schools, universities and businesses in **Cambridge, Somerville, Quincy** and **Braintree**



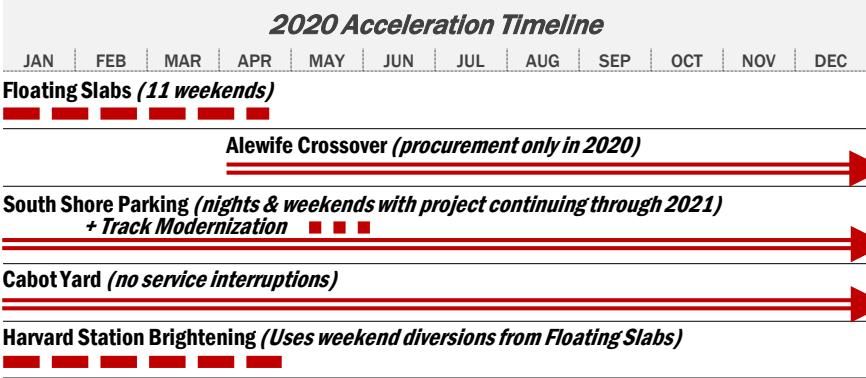
Complete repair of 32,000 feet of track (6 miles, including concrete track foundations)



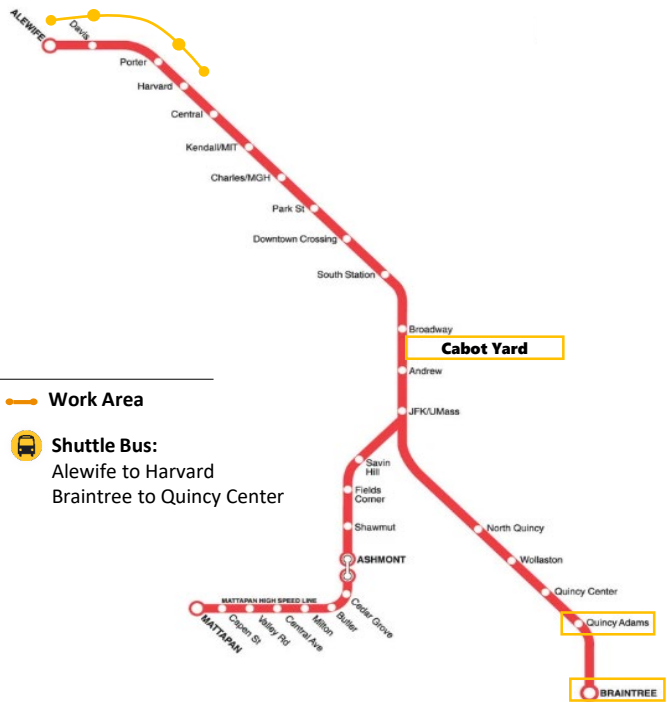
Tunnel leak mitigation between Alewife - Harvard Stations



Complete Braintree and Quincy Adams Parking Garages and replace nearby track



<b>Benefits</b>	<ul style="list-style-type: none"> <li>Improve safety by upgrading track structure and crossover (30+ years old)</li> <li>Elimination of 1,750 feet of slow zones (speed restrictions)</li> <li>Improve lighting at Harvard Station (using trackwork diversions from Floating Slabs)</li> </ul>	
<b>Service Impact</b>	<ul style="list-style-type: none"> <li><b>14 weekend diversions</b> (Jan - Apr 2020) - 11 diversions (May - Jun 2020) - 3 diversions</li> </ul>	The goal is to fully offset impacted parking spaces during construction; 400 spots will be returned 14 months early
<b>Alternative Service</b>	<ul style="list-style-type: none"> <li>Shuttle buses Alewife to Harvard Station</li> <li>Shuttle buses Braintree to Quincy Center</li> </ul>	





# Building a Better | Orange Line 2020

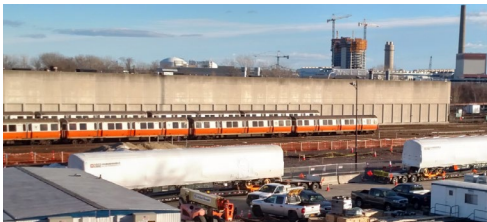
**Legend**

-  Night/Weekend Work
-  Continuous Closure
-  Project Duration Past 2020

 **180**  
Days Saved

 **6,600+**  
Riders Impacted

Residents, local schools, universities and businesses in the **City of Medford**



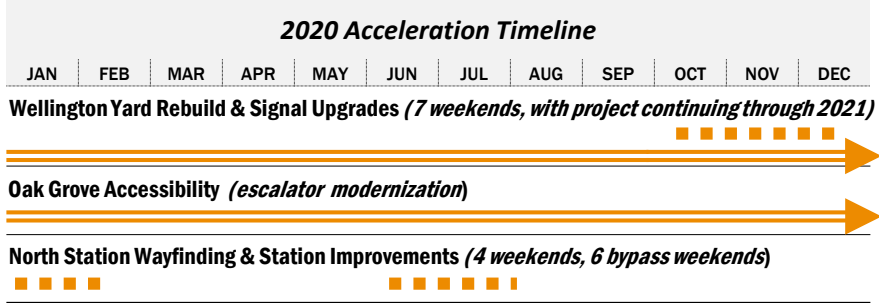
Replace 18,400 feet of track (3.5 miles) and associated systems at Wellington Yard






Oak Grove: modernize three escalators to improve station accessibility, replace 1,180 track ft, and enhance station



Upgrade a Traction Power Substation



<b>Benefits</b>	<ul style="list-style-type: none"> <li> Modernize the Orange Line’s primary vehicle storage and maintenance facility systems (track, traction power, signals &amp; communications) (40+ years old)</li> <li> Overall improvement to accessibility and customer experience</li> </ul>	
<b>Service Impact</b>	<ul style="list-style-type: none"> <li>• <b>11 weekend diversions</b> (Jan – Feb 2020) – 4 diversions (Oct – Dec 2020) – 7 diversions (Jun – July 2020) – 6 North Station bypass</li> </ul>	Wellington Maintenance Facility and Yard operations will be impacted during construction.
<b>Alternative Service</b>	<ul style="list-style-type: none"> <li> Shuttle buses will be provided between Oak Grove to Sullivan.</li> </ul>	

# Building a Better **T** | Blue Line 2020

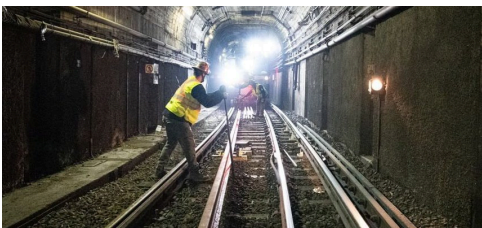
**Legend**

- ⋯ Night/Weekend Work
- Continuous Closure
- ⇒ Project Duration Past 2020

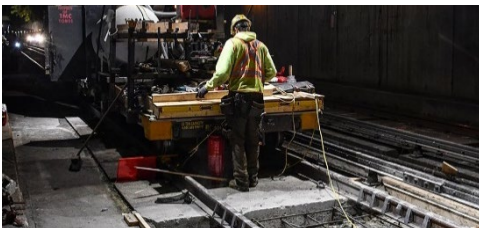
**760**  
Days  
Saved

**25,000+**  
Riders  
Impacted

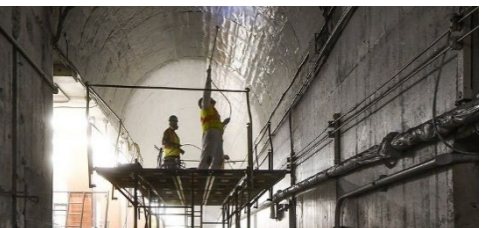
North Shore residents, local schools, universities and businesses in **Downtown Boston, East Boston, & Revere**



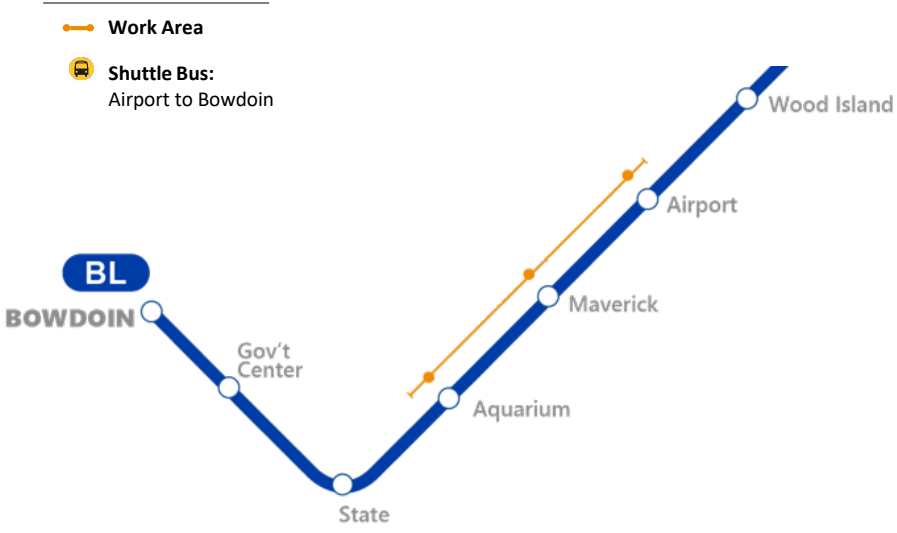
Replace up to 2,500 feet of track (~0.5 mile). Rehabilitate additional rail in tunnel



Open tunnel niches and build new truck pad, enabling easier maintenance access



Perform tunnel leak repairs and weather-proofing. Station enhancements and improved wayfinding



<b>Benefits</b>	<ul style="list-style-type: none"> <li>Proactive <i>safety and reliability</i> improvements, and enable easier maintenance access</li> <li>Address current slow zones (speed restrictions)</li> </ul>	
<b>Service Impact</b>	<ul style="list-style-type: none"> <li>Extended early access and weekend diversions: <b>19 weekend diversions</b></li> </ul>	All customers accessing the Blue Line at State & Government Center or traveling on the Blue Line from Bowdoin to Airport
<b>Alternative Service</b>	<ul style="list-style-type: none"> <li>Shuttle buses will be provided between downtown core and Airport</li> </ul>	



# Building a Better **T** | Commuter Rail 2020

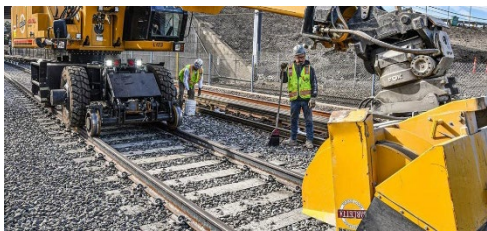
**Legend**

- Night/Weekend Work
- Continuous Closure
- ➔ Project Duration Past 2020

**180+**  
Days  
Saved

**500+**  
Riders  
Impacted

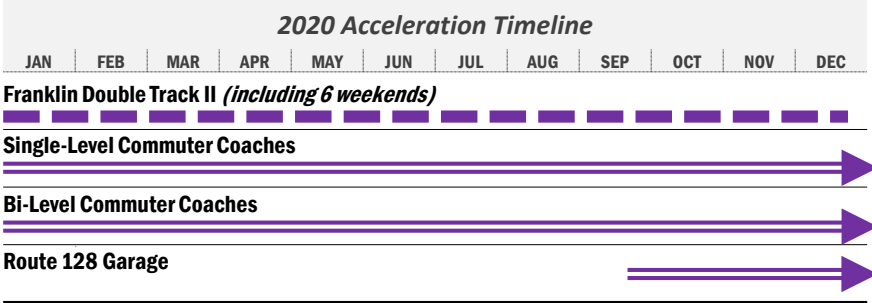
Residents, local schools, universities and businesses in **Melrose, Walpole** and **Westwood**



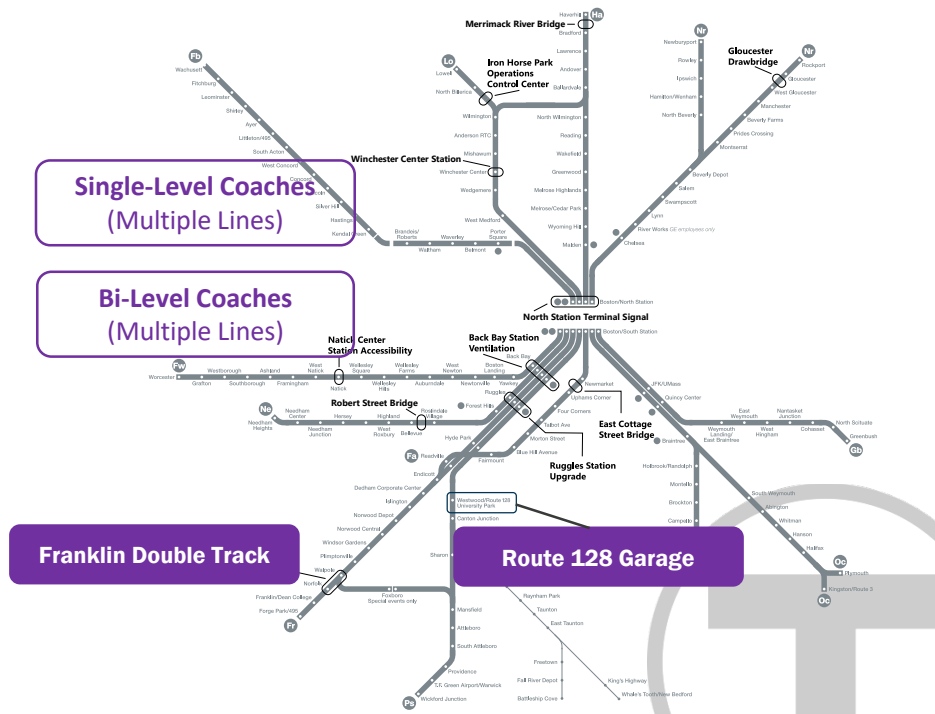
Construct 39,000 total feet of new track on the Franklin Line, providing two tracks for service

Build two new crossovers (interlockings) for trains to switch tracks

Accelerate acquisition of 80 bi-level commuter rail coaches to improve reliability & capacity



<b>Benefits</b>	<ul style="list-style-type: none"> <li>Increase on-time performance to 91% through increased service adherence and flexibility (Franklin Line)</li> <li>Improve reliability by replacing oldest passenger coaches in the fleet</li> </ul>
<b>Service Impact</b>	<ul style="list-style-type: none"> <li>Extended early access and weekend diversions: <b>6 weekend diversions</b></li> </ul> <p>Affects all customers using the Franklin. Temporary parking space loss for construction at Route 128</p>
<b>Alternative Service</b>	<ul style="list-style-type: none"> <li>Alternate service provided from Forge Park to South Station (Franklin Double Track) Diversion to local transit service (Franklin Street Crossover)</li> </ul>





# Building a Better **T** | Silver Line & Systemwide

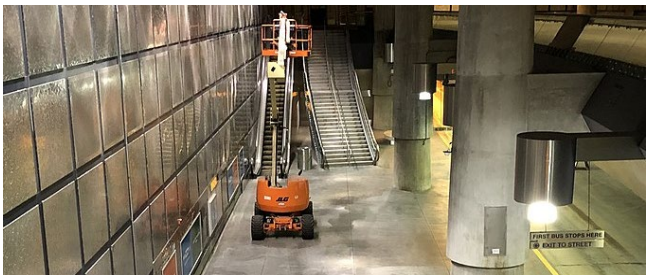
**Legend**

- ... Night/Weekend Work
- Continuous Closure
- ➔ Project Duration Past 2020

**480**  
Days  
Saved

**100+**  
Riders  
Impacted

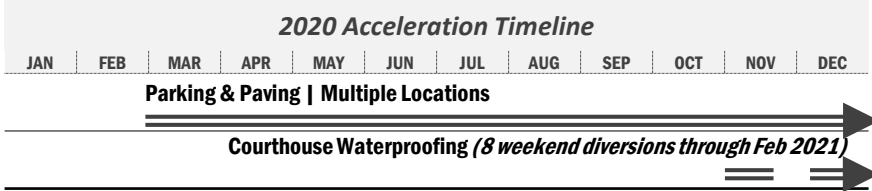
Residents, local schools, universities, businesses and visitors in the **City of Boston** and **multiple parking facilities**: varies by facility location



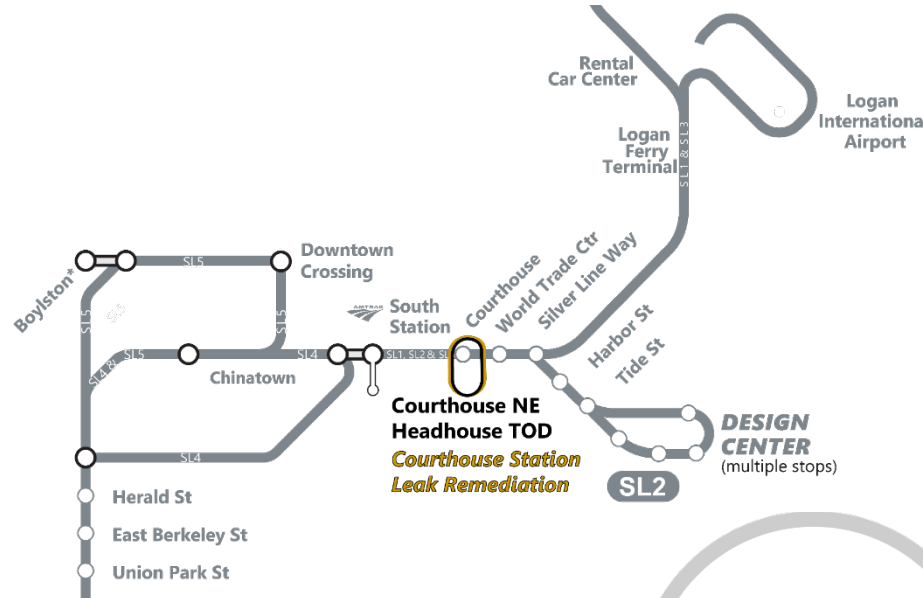
Waterproof compartments at Courthouse Station & East tunnels to reduce future leaking



Repair parking lot pavement at multiple parking facilities (systemwide)



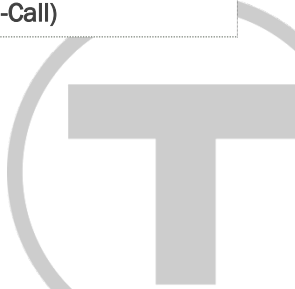
<b>Benefits</b>	<ul style="list-style-type: none"> <li>Enhance station navigation and lighting; compliance with ADA, Limited English Proficiency (LEP) and new MBTA wayfinding standards</li> <li>Improve condition of accessible pathways and customer experience</li> </ul>
<b>Service Impact</b>	<ul style="list-style-type: none"> <li>Extended early access and weekend diversions: <b>8 weekend diversions</b></li> </ul>
<b>Alternative Route</b>	<ul style="list-style-type: none"> <li>Silver Line buses will run at street level during outages (expect 15-min delays)</li> </ul>



# Other Major Investments | Underway in 2020

Beyond those projects with service impacts, the MBTA will deliver additional projects in 2020 to improve **safety** and **quality of service** for riders

<span>GL</span> <b>Green Line</b>	<span>RL</span> <b>Red Line</b>	<span>OL</span> <b>Orange Line</b>	<span>CR</span> <b>Commuter Rail</b>	<span>SW</span> <b>Bus &amp; Systemwide</b>
<b>38 projects, \$726.7M</b> (FY 20-24) <i>Some Investments Underway:</i>	<b>21 projects, \$295.1M</b> (FY20-24) <i>Some Investments Underway:</i>	<b>11 projects, \$74.9M</b> (FY20-24) <i>Some Investments Underway:</i>	<b>98 projects, \$685M</b> (FY20-24) <i>Some Investments Underway:</i>	<b>186 projects, \$1.1B</b> (FY20-24) <i>Some Investments Underway:</i>
Beacon Junction Special Trackwork <i>Kenmore area</i>	Alewife Elevators <i>Alewife</i>	Back Bay TOD Projects <i>Back Bay</i>	Back Bay Station Ventilation <i>Back Bay</i>	Courthouse NE Headhouse TOD
Brookline Hills TOD <i>Brookline Hills</i>	Alewife Garage Improvements <i>Alewife</i>	Orange Line Tunnel Repairs <i>Systemwide</i>	Bridge Bundling Contract <i>Multiple</i>	Silver Line Gateway Phase 2 (Chelsea Station)
Green Line Central Tunnel Signals <i>Kenmore – North Station</i>	Codman Yard Expansion <i>Codman Yard</i>	Orange Line Track Modernization <i>Systemwide</i>	East Cottage Street Bridge <i>Boston</i>	Bus Stop Accessibility Improvements
	Kendall TOD Projects <i>Kendall Square</i>	Orange Line Vehicles <i>Systemwide</i>	F40 Locomotive Overhaul <i>Systemwide</i>	Exclusive Bus Lanes
	Red Line Track Modernization <i>Systemwide</i>	Signal Program – Orange Line <i>Systemwide</i>	Gloucester Drawbridge <i>Gloucester</i>	Lo-No Bus Procurement
	Red Line Vehicles <i>Systemwide</i>	Sullivan Square Station Rehabilitation <i>Sullivan Square</i>	Iron Horse Park OCC <i>Billerica</i>	Option Order – 194 + 60 New Flyer Hybrid 40-Foot Buses
		Wellington Maintenance Facility <i>Wellington</i>	Merrimack River Bridge <i>Haverhill</i>	Overhaul of 155 New Flyer Buses
			Natick Center Station Accessibility <i>Natick</i>	MBTA Parking & Paving II
			North Station Terminal Signal <i>North Station</i>	Facility Roof Replacement
			Robert Street Bridge <i>Roslindale</i>	Power Systems Resiliency Program
			Ruggles Station Upgrade <i>Ruggles</i>	Structural Repairs Systemwide
			Winchester Center Station <i>Winchester</i>	Tunnel Repairs (On-Call)













# 2020 Timeline | Full Weekday & Weekend Closures

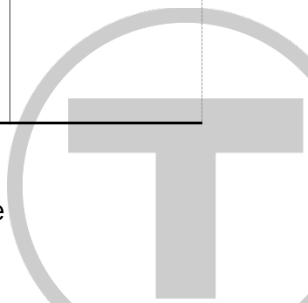
As we get closer to the diversion dates, more detailed information will be available at [mbta.com/BBT2020](http://mbta.com/BBT2020)

## Full Weekday & Weekend Closures

JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
		 <b>North Station – Lechmere</b> <i>Lechmere Viaduct Repair &amp; Rehabilitation/Green Line Extension</i>	 <b>E</b> May 2020 – Apr 2021								
							 <b>Cleveland Circle – Kenmore</b>  <i>C Branch Track &amp; Intersection Upgrades</i>				
								 <b>Heath – Prudential</b>  <i>E Branch Track &amp; Intersection Upgrades</i>			

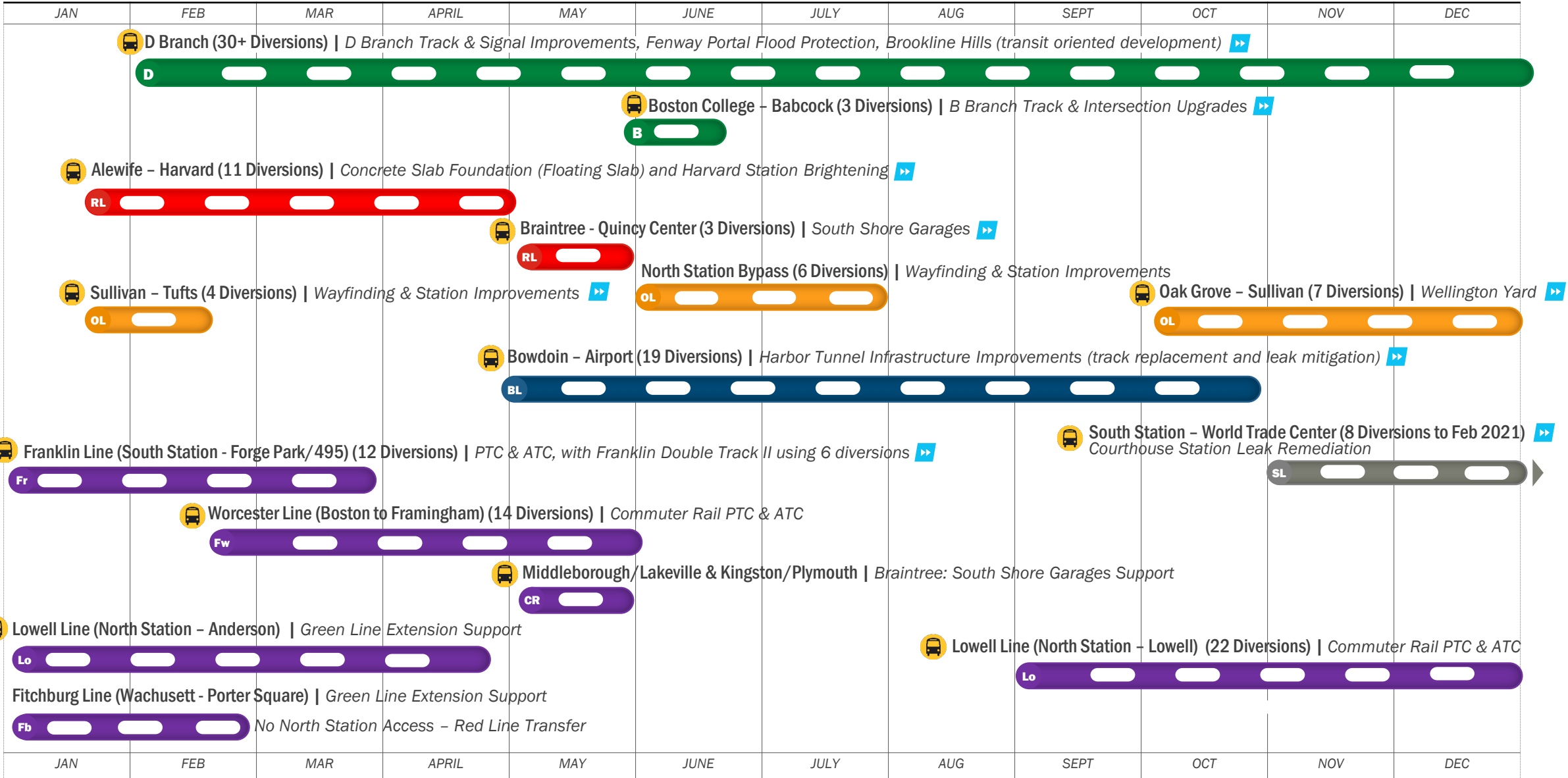
 Shuttle buses will replace service     Indicates accelerated work

 Schedules are weather-dependent and subject to change



# 2020 Timeline | Weekend Diversions

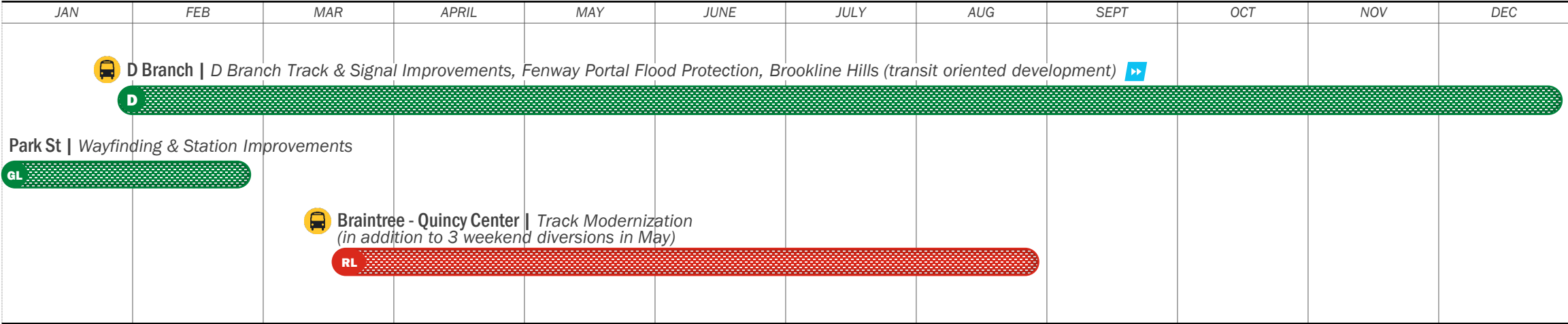
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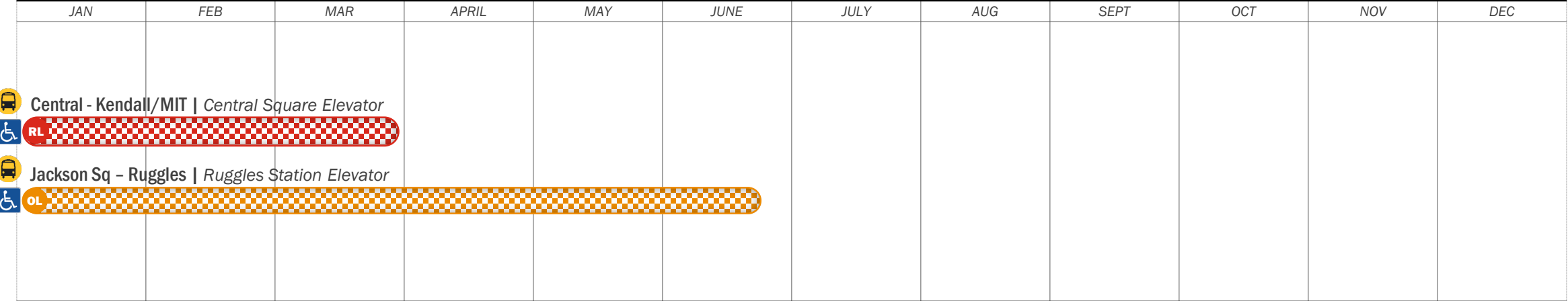
# 2020 Timeline | Other Service Disruptions

As we get closer to the diversion dates, more detailed information will be available at [mbta.com/BBT2020](http://mbta.com/BBT2020)

## Evenings | Service Stops 9:00pm



## Long-Term Elevator Closures | Accessibility Shuttles Available



Shuttle buses will replace service  
 Alternate access provided  
 Indicates accelerated work  
 Weekday early access starting at 9:00 p.m.

! Schedules are weather-dependent and subject to change

# Building a Better | Commitment to Our Riders



## **Enhanced Customer Communication**

- ✓ Ongoing and **transparent outreach** to riders, communities, & stakeholders
- ✓ **Build awareness** using all channels (traditional media, social media, alerts, website, etc.)
- ✓ In-station signage, **customer service** representatives, flyers, hotlines
- ✓ **Accountability** through outreach to clearly communicate expectations

## **Service Alternatives**

- ✓ Regular service replaced by **shuttle buses**
- ✓ **Accessible service and pathways** provided during shutdowns

