



**Massachusetts Bay  
Transportation Authority**

# Report from the General Manager

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Fiscal and Management Control Board

May 21, 2020

# Agenda

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## 1. Pilot and Project Updates

- a) Blue Line Acceleration Update
- b) Lynn Zone 1A Pilot

## 2. Ridership Update and MBTA Asset Overview

## 3. Transit in Reopening Context

## 4. Service – Phasing

## 5. Ride Safer

- a) Employee Protection
- b) Vehicle/Station/Facility Decontamination
- c) What We Ask of Our Riders

## 6. Supply & Demand

- a) Demand Management
- b) Vehicle Capacity Thresholds
- c) Supply-side Strategies



# Pilot and Project Updates

*Blue Line Acceleration Work  
Commuter Rail Fare Pilot: Lynn Zone 1A*



# Blue Line Acceleration Work: May 18-31

## Four Contractors and Eight Subcontractors

- Barletta Heavy Division: installation of new truck pad and full depth replacement
- Cannistraro: standpipe replacement
- Judlau: abatement work, painting and cleaning, signage installation, accessibility
- SPS: tunnel leak repairs, drainage force main replacement, spall removal, abandoned equipment removal

## Six Internal MBTA Departments

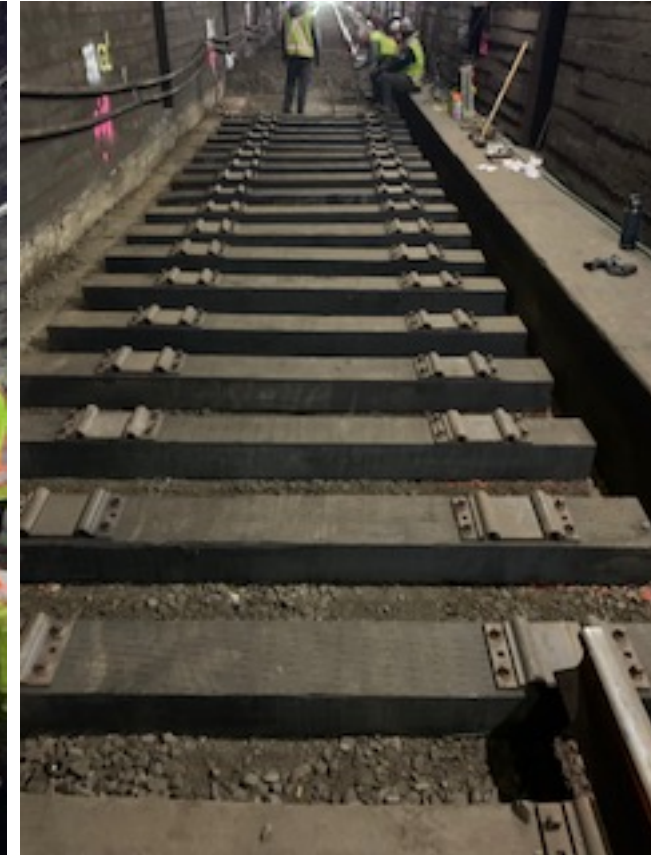
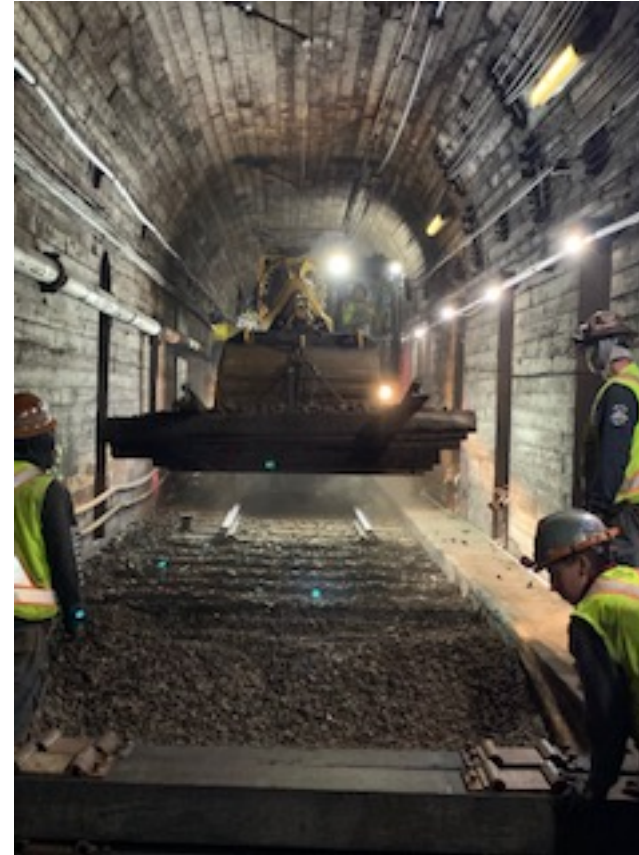
- Maintenance of Way: restraining rail installation, rail replacement
- Signals: various maintenance items
- Fare Transformation: faregate overhaul
- Power: elevator floor replacements, various maintenance items
- Security: camera installation
- Capital Programs: project coordination



# Blue Line Acceleration Work: May 18-31

## Benefits

- Decrease rate of tunnel degradation and stray current risk
- Eliminate current speed restrictions from worn rail, increasing train speeds and shortening travel times
- Improve flood resilience and prevent water leaks and corrosion
- Accomplish work while ridership is low and there are fewer travelers to the airport



# Commuter Rail Fare Pilot: Lynn Zone 1A

## Avoid Blue Line Construction

**Just Show Your  
CharlieCard or  
CharlieTicket to take  
the Commuter Rail**



**Lynn ↔ North Station  
May 22-31, all day**

Learn more at:  
[MBTA.com/blwork](https://www.mbta.com/blwork)

For questions, call:  
617-222-3200

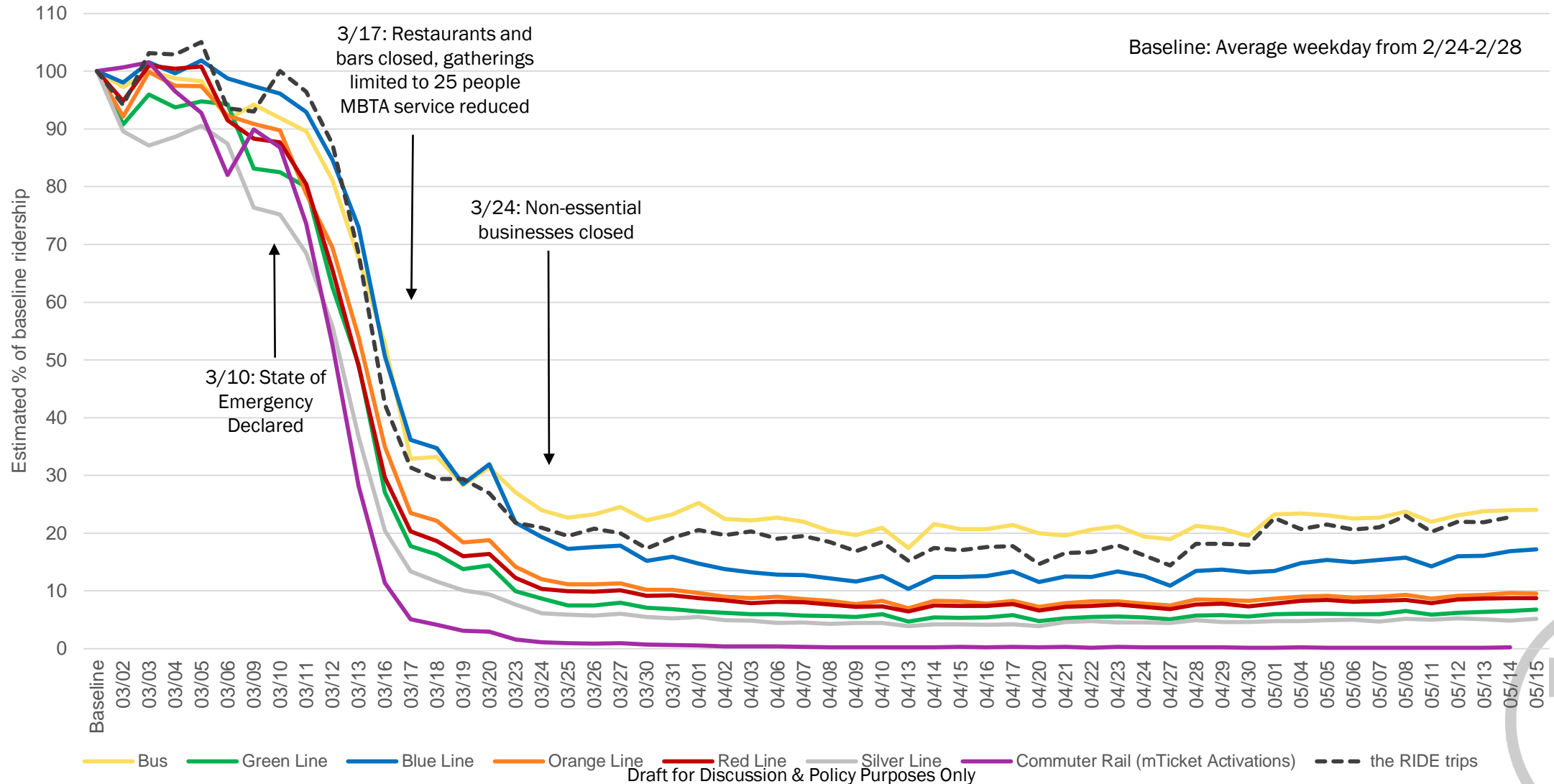
- Zone 1A fares will be temporarily accepted at Lynn Commuter Rail Station from May 22 through May 31 while Blue Line service between Bowdoin and Airport Stations is suspended
- The goal is to reduce crowding and promote social distancing on buses/shuttles during the service diversion
- Customers can show their CharlieCard or CharlieTicket to the conductor when traveling between North Station and Lynn



# Ridership Update and MBTA Asset Overview

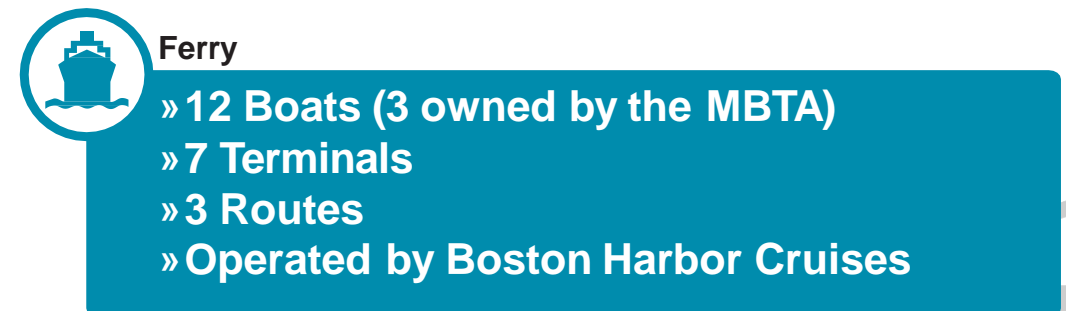
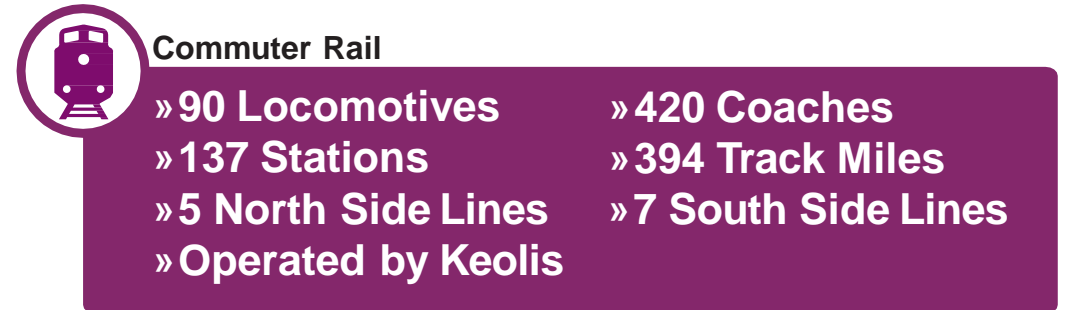
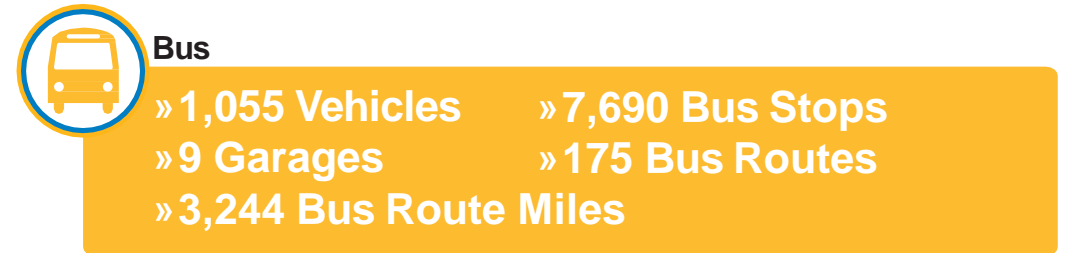
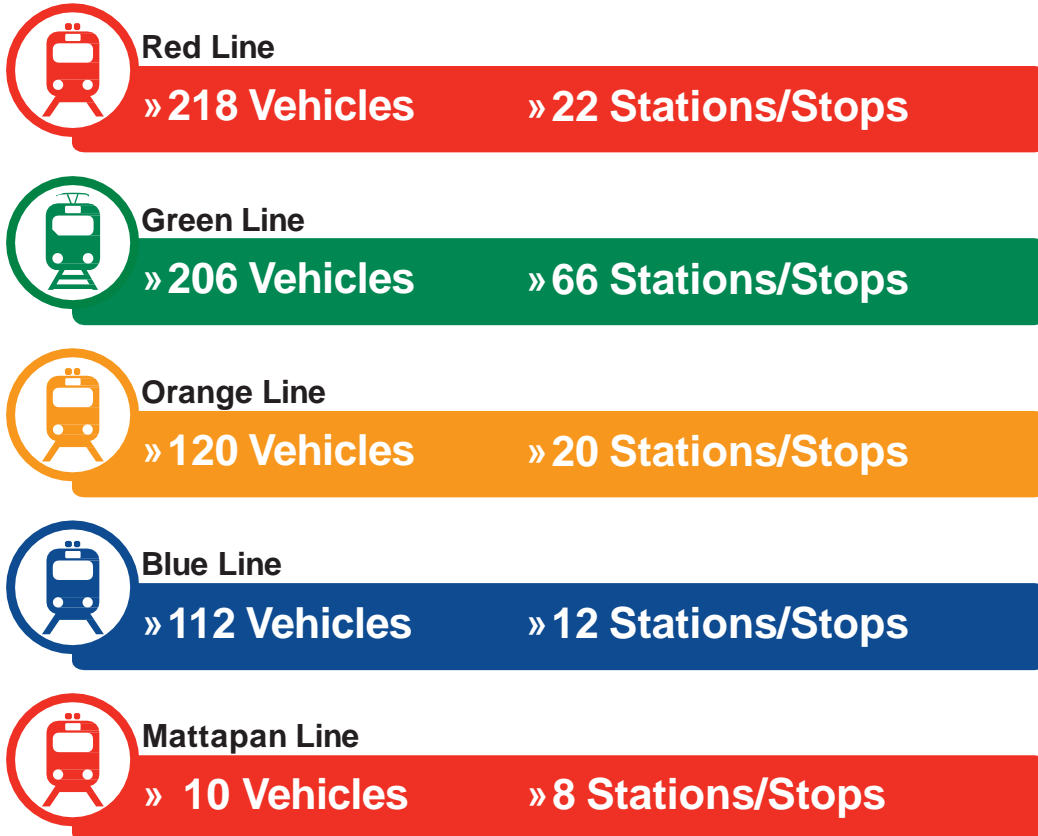


# Weekday Ridership by Line and Mode – Indexed to Week of 2/24





# MBTA by the Numbers








# Transit in Reopening Context





# REOPENING MASSACHUSETTS IN PHASES

## Phased approach and reopening summary plan (I)

	Current state: Stay at home	Phase 1: Start	Phase 2: Cautious	Phase 3: Vigilant	Phase 4: New normal
<b>Social guidance</b>	<p><b>As residents of Massachusetts, we are all in this together. Across all phases of reopening, please:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Cover your face</p> </div> <div style="text-align: center;">  <p>Wash your hands</p> </div> <div style="text-align: center;">  <p>Socially distance</p> </div> <div style="text-align: center;">  <p>Be vigilant for symptoms</p> </div> <div style="text-align: center;">  <p>Stay home if you feel sick</p> </div> </div>				
<b>High risk populations</b> As defined by the CDC	<ul style="list-style-type: none"> <li>High risk should work from home if possible, priority consideration for workplace accommodations</li> </ul>	<ul style="list-style-type: none"> <li>High risk should work from home if possible, priority consideration for workplace accommodations</li> </ul>	<ul style="list-style-type: none"> <li>High risk should work from home if possible, priority consideration for workplace accommodations</li> </ul>	<ul style="list-style-type: none"> <li>High risk should work from home if possible; priority consideration for workplace accommodations (these could be adjusted depending on pending epidemiological evidence)</li> </ul>	<ul style="list-style-type: none"> <li>Resume public interactions with physical distancing</li> </ul>
<b>Gathering size</b>	<ul style="list-style-type: none"> <li>Gatherings of &lt;10 people</li> </ul>	<ul style="list-style-type: none"> <li>Gatherings of &lt;10 people</li> </ul>	<ul style="list-style-type: none"> <li>To be determined based on trends</li> </ul>	<ul style="list-style-type: none"> <li>To be determined based on trends</li> </ul>	<ul style="list-style-type: none"> <li>To be determined based on trends</li> </ul>
<b>Travel</b>	<ul style="list-style-type: none"> <li>Stay at home advisory</li> <li>All travelers to MA urged to self-quarantine for 14 days</li> <li>Lodging restricted to essential workers only</li> </ul>	<ul style="list-style-type: none"> <li>Safer at home advisory</li> <li>All travelers to MA urged to self-quarantine for 14 days</li> <li>Lodging restricted to essential workers only</li> </ul>	<ul style="list-style-type: none"> <li>Business and recreational travel discouraged</li> <li>All travelers to MA urged to self-quarantine for 14 days</li> <li>Lodging open with restrictions</li> </ul>	<ul style="list-style-type: none"> <li>To be determined based on trends</li> </ul>	<ul style="list-style-type: none"> <li>Travel resumes, continue to observe social guidance</li> </ul>
	Most certain	Degree of certainty given the progression of COVID-19			Least certain



## REOPENING AND FIGHTING COVID-19

On May 18, the Baker-Polito administration issued the Safer At Home Advisory:

### Cover – Wash – Distance – Vigilance

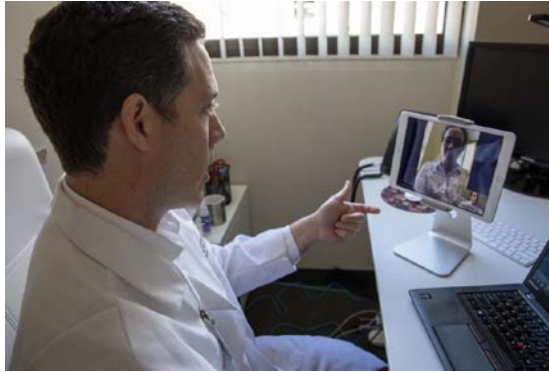
- ✓ People over the age of 65 and people who have underlying health conditions – who are at high risk for COVID-19 – should continue to stay home except for essential errands such as going to the grocery store and to attend to healthcare needs
- ✓ All residents are advised to leave home only for healthcare, worship and permitted work, shopping, and outdoor activities
- ✓ All residents are **REQUIRED** to cover their face when they cannot maintain six feet of social distance in public
- ✓ All residents are advised to wash their hands frequently for at least 20 seconds with soapy water
- ✓ All residents are advised to be vigilant, monitor for symptoms and stay home if you feel sick

### What Safer At Home Means

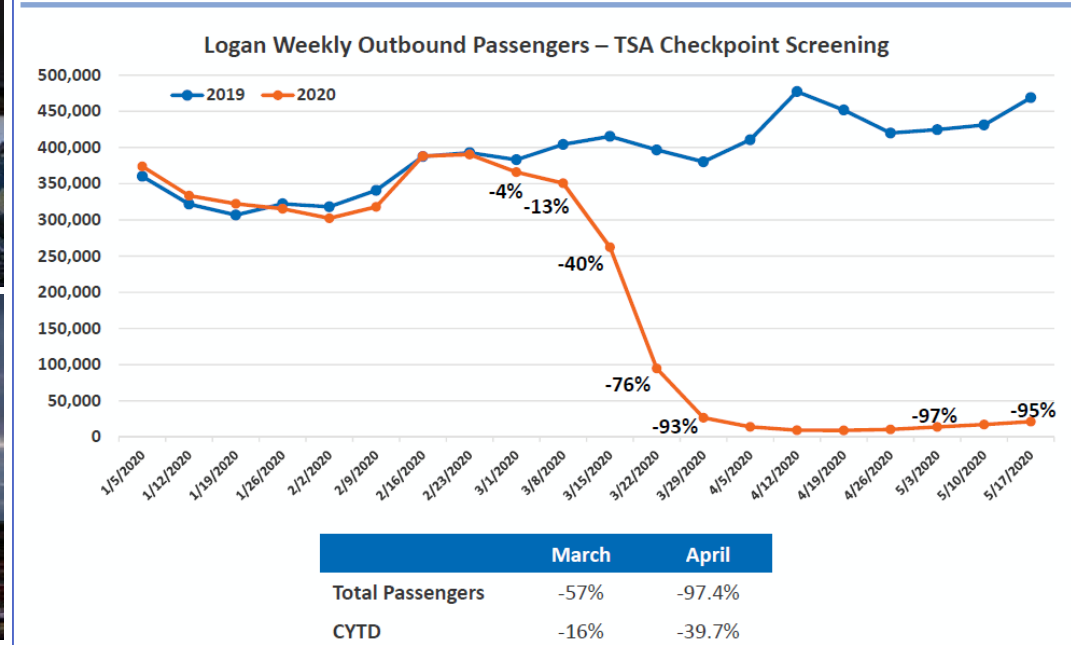
- Only leave home for health care, permitted work, shopping, and outdoor activities
- When going to the pharmacy ask if you can fill your prescriptions for 90 days if possible; for some medications this is not allowed. If you are at high-risk, try to use a mail-order service
- Don't participate in close contact activities such as pick-up sports games
- Use remote modes of communication like phone or video chat instead of visiting friends or family who are high risk for COVID-19
- Refrain from visiting nursing homes, skilled nursing facilities, or other residential care settings
- Parents should limit play dates for children

# Many trips should not and will not re-start in Phase One or Two

- Airport travel down by 95%
- Telemedicine reducing need for health care travel
- Convention center, Fenway and large venues closed until Phase 4
- Boston Public Schools closed
- Colleges and universities closed
- Museums and attractions closed
- Restaurants and bars not open yet



Logan's weekly outbound passenger volumes have been steady over the last few weeks



# Work from Home should remain the norm in metro Boston (and statewide) for many months

## COMPANIES COMMITTED TO CONTINUING WORK FROM HOME INCLUDE

AECOM	Google
Akamai Technologies	Harvard Pilgrim Health Care
Alkermes	Ipsen
Alnylam	Iron Mountain
Amgen	John Hancock
Analog Devices	The Kraft Group
Autodesk	Liberty Mutual
Bank of America	MassMutual
Biogen	Millipore Sigma
bluebird bio	MFS Investment Management
Blue Cross Blue Shield of Massachusetts	MITRE
Boston Scientific	Monster.com
Brooks Automation	National Grid
Care.com	Novartis
Cigna	Oasis Systems
Comcast	Peoples United Bank
Dassault Systèmes	PTC
Dell Technologies	Putnam Investments
Deloitte	Rapid7
Eaton Vance	Raytheon Technologies
EY	RSM
Facebook	Sage Therapeutics
Foundation Medicine	Sanofi
	Sage Therapeutics

Sanofi  
Sarepta Therapeutics  
Siemens  
State Street  
Takeda  
Tango Therapeutics  
Tufts Health Plan  
Verizon  
Wayfair

Roger Crandall, CEO,  
MassMutual:

“An important thing MassMutual can do in Boston, ***is not have our people taking space [on the T] from people who need to go to their workplace to get paid and have their companies function.***”

Niraj Shah, CEO, Wayfair:

“During the month of March, Wayfair's corporate employees and sales and service team members across the Commonwealth successfully transitioned to working from home. We plan to allow employees to continue working from home during the coming months to protect the health and well-being of our employees, ***and to help ensure safe and seamless access to public transportation*** and other community support systems for those who need them most.”

# Transit Riders Are Likely to Return Cautiously

	YES	NO	UNDECIDED
Would you be comfortable riding buses, subways and commuter trains when it is allowed?	18.0%	79.2%	2.8%
Would you be comfortable riding buses, subways and commuter trains if there were an effective treatment but NOT a vaccine for COVID-19?	41.2%	56.6%	2.2%
If there were a vaccine for COVID-19, would you be comfortable riding buses, subways and commuter trains?	72.4%	25.4%	2.2%

*SOURCE:* Suffolk University PRC/WGBH/Boston Globe Poll of Massachusetts residents conducted April 29-May 2, 2020

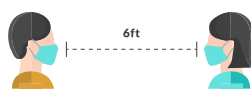
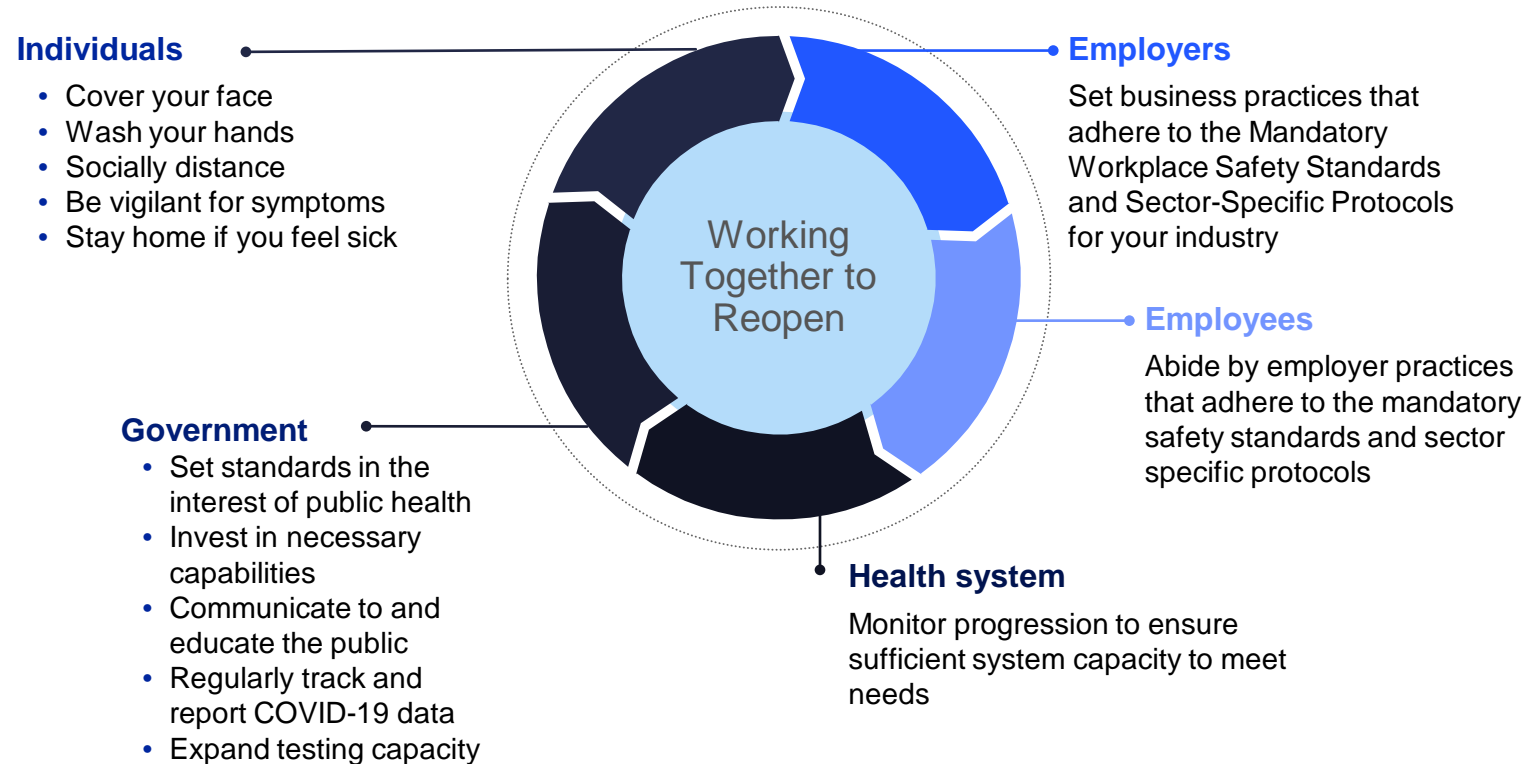
IBM Institute for Business Value polled 25,000 US consumers in April, 2020 “and found shifting attitudes toward personal mobility, event attendance, retail, and remote work. . . . More than 20% of respondents who regularly used public transit said that they no longer would, with a further 28% saying they would use public transportation less often.”

Source: Consulting.us  
<https://www.consulting.us/news/4185/ibm-covid-19-greatly-altering-consumer-preferences-and-behavior>



## WORKING TOGETHER TO REOPEN

Until a treatment or vaccine for COVID-19 is available, life will not return to normal. We each have a collective responsibility to ensure that reopening proceeds smoothly and safely. Everyone must follow public health directives and use common sense to protect yourself, your family, your neighbors, and vulnerable populations across the Commonwealth.







## TRANSIT (I)

The MBTA has been and will continue to implement measures to slow the spread of COVID-19 across the system to keep employees and riders safer.

**While public transportation unavoidably creates some risk of transmission, the MBTA, riders and employers can significantly reduce that risk by working together:**



Riders are required to wear masks and must make efforts to distance. Riders are asked to avoid riding transit if they are exhibiting symptoms of COVID-19.



Employers are encouraged to stagger schedules and implement work from home policies to reduce demand, especially during rush hours.



The MBTA will continue to take protective and preventative measures such as frequently disinfecting and cleaning vehicles and stations and providing protective supplies to workers.

**To mitigate risk while providing appropriate levels of service, the MBTA will:**



Support the transit needs of essential workers and those returning to the workplace in Phase 1 while continuing with limited service to maximize employee and rider safety.



Ramp up to a modified version of full service by Phase 3, although social distancing efforts will limit effective capacity on vehicles even after full service schedules are restored.



Actively communicate public health guidance and schedule adjustments in-station, online, and over social media.

# Service

*Phasing  
Fairmount Line Pilot*



# Phasing

	Current state: Stay at home	Phase 1: Start	Phase 2: Cautious	Phase 3: Vigilant	Phase 4: New normal
<b>Bus</b>	Adapted Saturday schedule	Unchanged	Additional service for high demand bus routes as staffing permits	Resume full 2020 schedule, as staffing permits. Add service to high demand routes.	Resume FY20 full schedule/ possible peak addition**
<b>Subway / Blue</b>	Adapted Saturday schedule	Unchanged	FY20 full schedule	FY20 full schedule	FY20 full schedule
<b>Subway/ Red</b>	Saturday schedule	Unchanged	Increased service (shorter time between trains)	FY 20 full schedule	FY20 full schedule
<b>Subway/ Orange</b>	Saturday schedule	Unchanged	Increased service (shorter time between trains)	FY 20 full schedule	FY20 full schedule
<b>Green Line</b>	Saturday schedule	Unchanged	Increased service (shorter time between trains)	FY20 full schedule as staffing permits	FY20 full schedule
<b>Commuter Rail</b>	Reduced schedule	Unchanged	Additional trains including off-peak on Fairmount Line	Modified FY20 full schedule*	Modified FY20 full schedule*
<b>Ferries</b>	Closed	Unchanged	Reopen with reduced service	FY20 full schedule	FY20 full schedule
	Most certain	Degree of certainty given the progression of COVID-19			Least certain

\* FY20 schedule modified, where feasible, to reflect changed travel patterns in COVID-19 new normal and workforce availability

\*\* MBTA has 60 buses on order so possible peak additions could add those buses to schedule, dependent on workforce availability



# Fairmount Line Pilot

- Service

- Pilot will provide eight additional weekday trips
- Trips times chosen in coordination with City of Boston based on likely demand and operational feasibility

- Fares

- If the FY21 fare and transfer change vote is passed:
  - Free transfers between Fairmount Line trips within Zone 1A and rapid transit will be permitted at South Station
  - “Step-up” transfers between Fairmount Line trips within Zone 1A and bus trips will be permitted on CharlieCards

- Priority Metrics

- Ridership
- Subsidy
- Equity
- Travel time savings
- Customer Experience
- On-time Performance
- Safety

- COVID-19 Impact

- Will launch when Commuter Rail service returns to normal
- Will run for a full year from start date
- Marketing for the pilot ready to launch when start date known

## Approximate Schedule

Readville	South Station
5:10am	5:40am
9:25am	9:55am
3:05pm	3:35pm
3:53pm	4:23pm

South Station	Readville
7:35am	8:05am
9:15am	9:45am
6:50pm	7:20pm
12:00am	12:30am

# Ride Safer

*Employee Protection*

*Vehicle/Station/Facility Decontamination*

*What We Ask of Our Riders*



# Employee Protection: Face Coverings

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- Governor Baker has issued an executive order requiring the use of face coverings in public places, including on all MBTA vehicles, stations, and stops.
  - The order went into effect on May 6 and applies to both MBTA customers and employees.
  - A “face covering” can be anything that covers your face, nose, and mouth, such as a scarf.
- The MBTA has launched a public awareness campaign called “Ride Safer” to spread the word about the order and encourage customers to wear face coverings.
- How will the MBTA enforce the order at stations and on vehicles?
  - The only exception to the order is for people unable to wear a mask due to a medical condition. MBTA employees are specifically prohibited from asking riders about medical conditions.
  - While we expect customers to comply, the MBTA will not refuse service to people who are not wearing face coverings.



# Employee Protection: Personal Protective Equipment

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## Face Coverings

- Received 1,100,000 masks last week, which are being verified to meet KN95 standard
- Second mask kitting session scheduled for Tuesday, May 13
  - 60,000 KN95 masks to be kitted to cover all employees physically reporting to work
- Procurement of 125,000 cloth masks in process to provide front line employees with 10 masks each and office staff with 5 each
- Face shields in the process of being ordered for employees that cannot socially distance
  - 15,000 to be donated by P&G/Gillette
  - 3,000 to be ordered for OHS
  - 1,000 compatible with hard hats

## Hand Sanitizer

- Expected delivery of wall-mounted hand sanitizer dispensers and Refill bladders have been delayed; Procurement is coordinating with the vendors to try to get these orders delivered as soon as possible
- Hand sanitizer filling continues at Everett, with a pair of 275-gallon drums in use for filling personal size containers



# Employee Protection: Health Testing

- Employees continue to be screened for fevers at bus and rail facilities
- In addition to the testing site at Foxboro, the MBTA is now offering free, voluntary testing for employees at sites in Lowell and West Springfield.





# Enhanced Decontamination Protocols

## Stations and Facilities

- Disinfecting touch points in high-traffic facilities twice a day
- Disinfecting touch points on surfaces such as handrails, fare gates, and fare vending machines in subway stations once every four hours
- Hired additional vendors for disinfecting using chemical fogging, electrostatic sprayers and manual disinfecting wipes/solutions



## Bus and Rail Vehicles

- Decontaminating all revenue vehicles nightly with disinfecting wipes
- Performing mid-day decontamination at layover locations daily by wiping down operator cabs and high-touch locations
- Wiping down cab, farebox, and entrance for first/second shift bus pullbacks
- Performing electrostatic fogging for 100% decontamination every 2 weeks of all bus vehicles
- Isolating and electrostatic decontamination of any vehicle reported as operated by an employee who tested positive for COVID-19



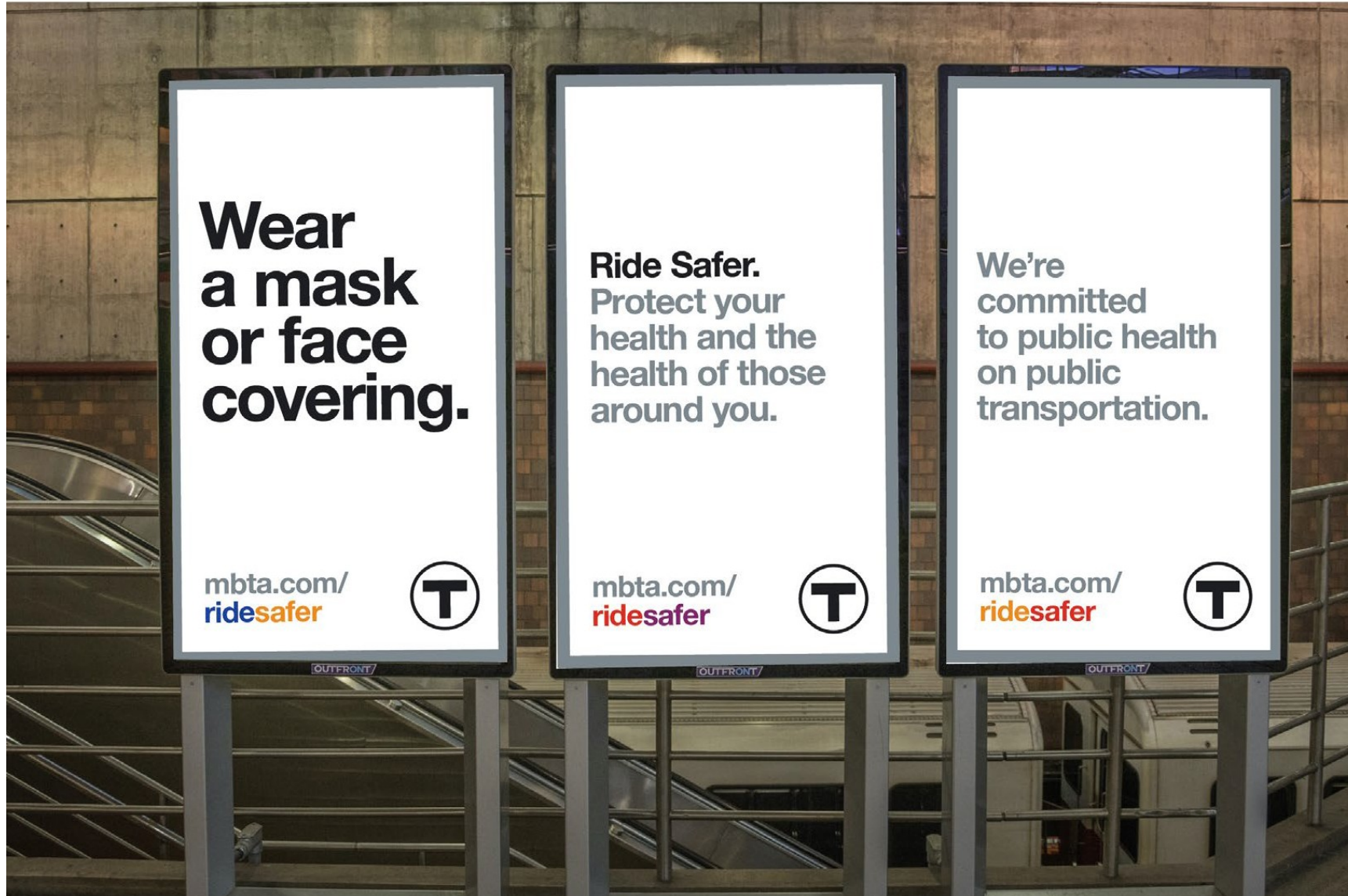
# What We Ask of Our Riders: Social Distancing As Feasible

## Policy: Messaging in stations, bus terminals, and vehicles to encourage social distancing

- Currently developing signage for station and vehicles
- Will provide guidance; not space by space markings
- Determining what level of E&M and outside contractor assistance is needed to execute
- Will focus on high volume locations



# What We Ask of Our Riders: In-Station Digital Screens



# What We Ask of Our Riders: Social Media

**T** MBTA @MBTA · May 11  
Current Status for Essential Travel Only: [mbta.com/coronavirus](https://mbta.com/coronavirus)  
Subway: Reduced service  
Bus: Saturday schedule, additional service on some routes  
@MBTA\_CR: Reduced service  
Ferry: No service  
The RIDE: Service available, new booking protocols  
CharlieCard Store closed

**T** MBTA @MBTA · May 11  
Effective 5/6, everyone is required to wear a face covering while on the T. We continue to:  
-Disinfect high-contact areas in stations  
-Disinfect vehicles daily + sanitize touch-points midday  
-Board buses & trolleys via rear doors  
-Promote social distancing  
-Open station doors



Social distancing and staying home are the best ways to limit the spread of COVID-19

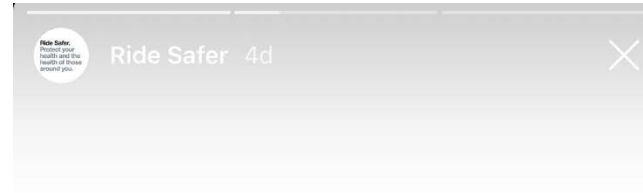
1:00 1.3K views

**T** MBTA @MBTA · May 11  
In coordination with @MassDPH, we encourage riders & employees to:  
• Wash hands often  
• Avoid touching your eyes, nose, mouth  
• Clean things that are frequently touched  
• Cover your mouth if you sneeze/cough  
• Stay home if sick  
• Think ahead  
Tips & info: [mass.gov/COVID19](https://mass.gov/COVID19)



Stop the Spread of Germs

0:39 719 views



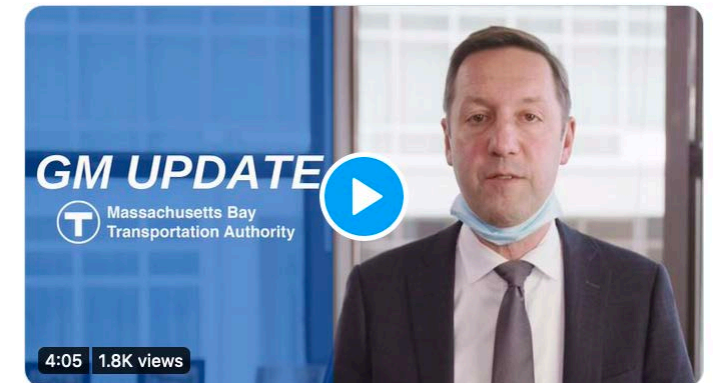
**Ride Safer.**  
Protect your health and the health of those around you.

[mbta.com/ridesafer](https://mbta.com/ridesafer)



**T** Pinned Tweet  
MBTA @MBTA · May 8  
As this situation evolves, we must adapt our operations & behaviors to align with a new normal. Along with @MassGovernor's order requiring face covers on public transit, we're launching the #RideSafer initiative to promote healthier, safer travel.

Watch for more from GM @spoftak



GM UPDATE

Massachusetts Bay Transportation Authority

4:05 1.8K views



# Demand

*Demand Expectations & Management*  
*Employee Availability*



# Demand Expectations

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- Reopening plan is phased
  - Major demand drivers like large events, higher ed, BPS, and air travel will not be present over the summer
- Traffic will come back before transit
- Do not expect a major jump in demand in aggregate
  - May see jumps on specific routes



# Demand Management: A Partnership to Reshape Commuting Patterns in Metro Boston

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- Reduce all commuting, addressing both potential transit crowding and renewed traffic congestion
  - Telecommuting options – WFH, partial WFH
- Spreading the peak to reduce both traffic congestion and transit crowding at “rush hour”
  - Staggered start/end times
  - Alternate work week schedules (7 days work weeks, more weekend work)
- Provide alternatives to both transit and single-occupant vehicle commuting
  - Carpooling/vanpooling/shared vehicle modes for longer trips
  - Cycling and walking for shorter trips
- Incentivize switching from overcrowded mode/routes to modes/routes where excess capacity exists
  - Communicate real-time traffic congestion and transit crowding information so commuters can make smarter decisions about how to commute on any given day
  - Fare policy initiatives



# Employee Availability Is Key Driver of Service Availability

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- The MBTA has **6,385 employees**, including 2,683 operators of passenger vehicles.
- The MBTA has **171 overall positive cases** among employees:
  - 54 confirmed active cases
  - 113 recoveries
  - 1 Loss of Life
- The MBTA has **1,000+** cumulative leaves related to COVID-19.

25% of bus operators are not available on a typical day over the last week; primarily due to COVID-19 related leave



# Crowding

*Service Availability and Ridership*

*Crowding Standards*

*Supply-side Strategies*



# Service Availability and Ridership Determine Crowding

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- **If 50% of ridership returns**, but social distancing expectations lower vehicle capacity to 20 per bus rather than 56:
  - 1200+ trips per weekday, or 9% of all weekday trips, would be over capacity
  - 51% of crowded trips would be on key bus routes (KBRs) – despite KBRs accounting for only 34% of total trips
  - 13% of KBR trips would be over capacity
  - There would be 3,800 excess passengers per weekday over capacity, which would take **200+ new bus trips to address**



# Crowding Definitions Set in the Service Delivery Policy

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- The MBTA has a standard for comfort as measured by vehicle load for each fleet in its Service Delivery Policy.
- This standard is used as part of the MBTA's service planning process to allocate resources. For buses, we calculate the standard quarterly and report back on it annually.
- Due to the need for social distancing, we propose to temporarily change the crowding standard by lowering the vehicle load threshold for each fleet.
- We will use this new standard for:
  - Service planning and operational decision-making
  - Providing regular updates on crowding to inform passenger travel decisions



# Setting a New Crowding Standard

- In order to set a vehicle load standard, we considered:
  - Requirement for face covering on the MBTA
  - CDC and WHO guidance
  - Practices by other transit agencies

Proposed vehicle load standard

Vehicle	No of Seats	SDP Peak Load (pax)	3 ft (~1 meter) (pax)	Percent of peak load
40' Bus	(31) 37 - 40	56	20	36%
60' Bus	38 - 57	80	31	39%
Green Line trolley	44 - 46	100	46	46%
Red Line car	50 - 63	161-165	66	40%
Orange Line car	58	141	62	44%
Blue Line car	35	86	42	49%

*Note: each Red, Blue, and Orange line train have 6 cars*

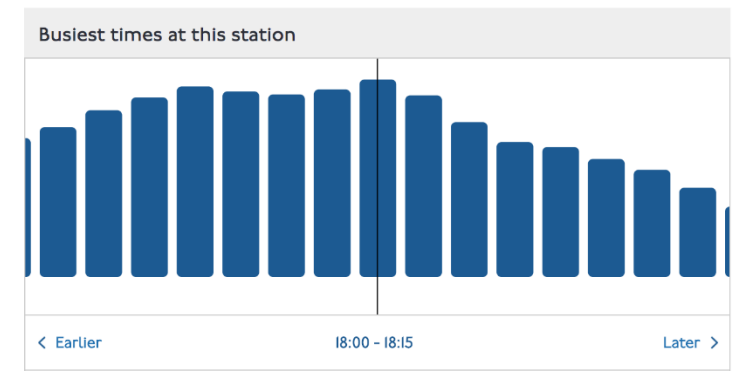
*Similar methodology to be used for Mattapan and Commuter Rail fleet, for ferry to use 50% of max load*



# Using Crowding Standards

- **Communicating Crowding to Passengers**
  - We conducted a survey of riders to determine what information and when they need to receive it in order to best inform trip making
    - Passengers are interested in both recent historic data when trip-planning and real-time data while waiting for a bus
  - Early results indicate that passengers want us to provide descriptions of crowding levels with multiple categories
  - Our data and customer technology teams are analyzing the feasibility of providing crowding information and the best way to display it
- **Internal Planning**
  - Track crowding and reallocate capacity as feasible
  - Develop other strategies to shift modes
- **Enforcement**
  - Logistically difficult
  - Important equity issues

## Example Design



Pre-trip planning recent data  
(London)



# Supply-side Strategies

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- Analysis of ridership patterns and projected crowding based on different ridership return rates.
- Prioritize service levels where we see current higher rates of ridership and where we expect demand to be greatest using demographic data
  - Decay of ridership provides plausible returning ridership scenarios
- Plan for ‘Run-as-Directed’ supply to address crowding where feasible
- Examine operational tactics to address crowding (e.g. short turns on the Blue Line)
- Plan proactively to address dropped trips and protect Key Bus Routes
- Increase available supply via adding off-peak service, including mid-day
- Examine Supply Redistribution (e.g. longer headways on low ridership routes; temporary suspension of low ridership routes)
- Examine Supply Substitution – use of incentives and real time information where supply is available on other modes
- Increase Throughput on Bus – more dedicated bus lanes



# To Our Essential Workforce:



THANK

YOU!

