

**Massachusetts Bay
Transportation Authority**

Report from the General Manager

Fiscal and Management Control Board

May 11, 2020

Safety Initiatives Update

Strengthen Safety Culture

- Implement a Safety Management System
 - Transit Safety Plan development is on track
 - The plan will be presented to the FMCB for approval in June
- Align MBTA around safety as a core value
 - Strategic Planning Committee is working with the Safety Initiatives project management team to ensure proper alignment with Strategic Plan

Perform Preventative Maintenance and Inspections at the Highest Level and Establish a QA/QC Department

- Perform an independent inspection of Power, Right of Way, and Track Conditions
 - All inspections have been completed
 - All immediate risks/defects have been addressed
- Calibrate all tools and components at all facilities
 - All tool calibration is up to date
 - Tools are being entered into the Trapeze Asset Management System
 - Calibration Program Procedure is being updated to reflect new process

Better Inform Employees and the Public About Safety Performance

- Communicate safety performance regularly with employees
 - The GM is sharing regular written and video updates with the workforce on issues related to COVID-19, such as PPE, rear-door boarding, and temperature screening
 - A deep-dive presentation on safety and internal communications will be presented to the FMCB on May 21

Restructure Safety Department to Meet Goals for Safety Oversight and SMS Implementation

- Hire unfilled positions and subject matter expert positions
 - 22 positions have been approved for hire
 - 6 candidates have accepted offers
 - The search for a new Chief Safety Officer continues



Construction Restart Overview May 2020

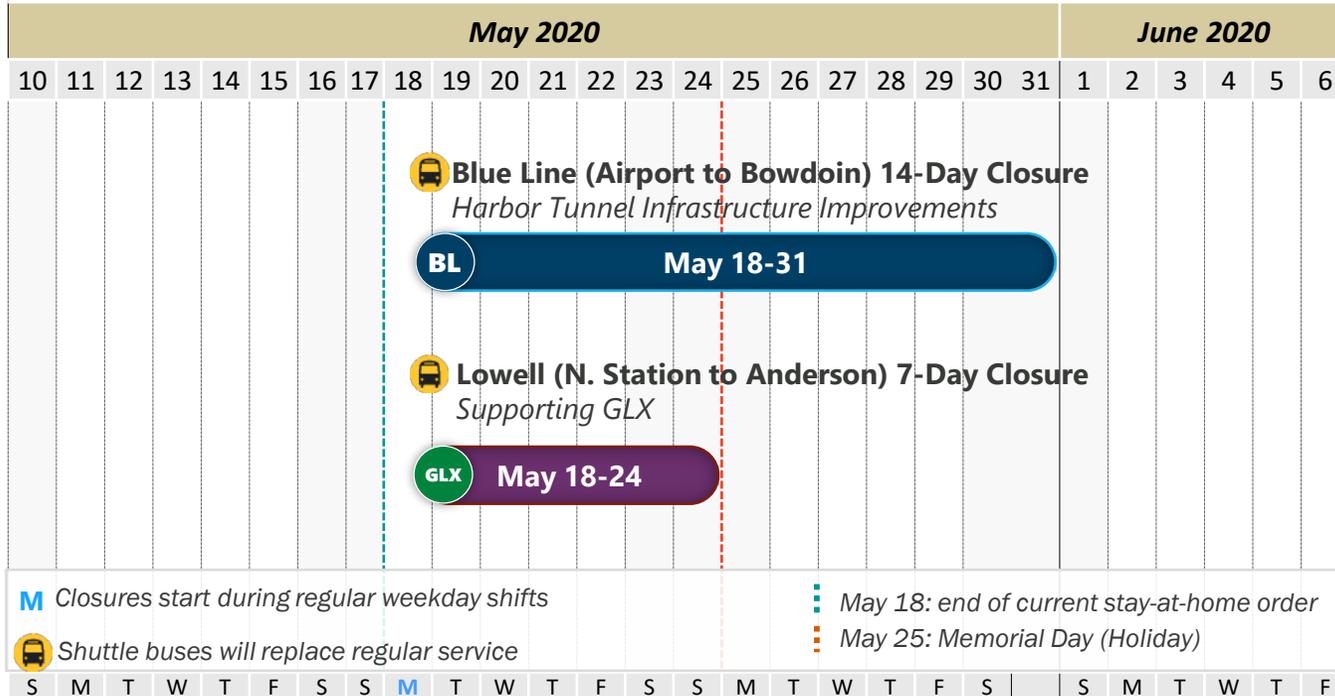
Leverage low ridership in May while restrictions are in place due to COVID-19 directives

Current Ridership



Benefits of Full Closure

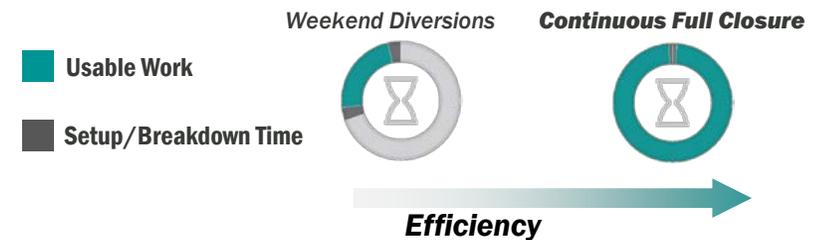
- ✓ Advance work now and prevent impacts to businesses and communities when restrictions are lifted
- ✓ Accomplish more work in less time*
- ✓ Reduce manpower resources needed to accomplish work*



Ongoing Construction Activity

Drawbridge Replacement - 2022
GLX Lechmere Viaduct - 2021

Efficiency of Approach



Blue Line | 14-Day Full Closure

BL

Airport to Bowdoin

▶▶ Acceleration | May 18 - 31 (14 Days)

Track Replacement: Replace 85-lb rail and install new truck pad

Tunnel Repairs: Structural repairs, crack injection & waterproofing

Aquarium Station: Drainage rehabilitation and work at Long Wharf Emergency Egress

Benefits

- Decrease rate of tunnel degradation and stray current risk
- Eliminate current speed restrictions from worn rail
- Accomplish work while ridership is low and fewer travelers to airport

Savings | Reduced Impacts on Riders and Communities

	Proposed	Weekend Diversions	Savings✓
Service	14 Days During May 2020	120 Days 7 diversions scheduled over four months	106 Days Saved

Work Area



Alternative Service
(private coaches)

Inbound



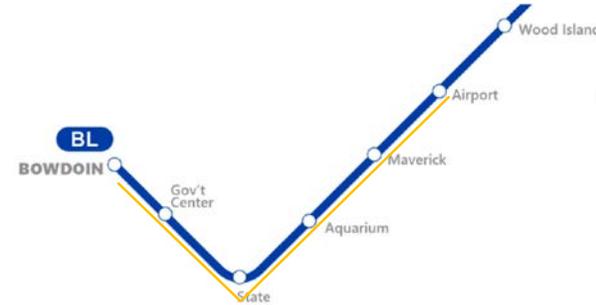
Outbound



May 2020

June 2020

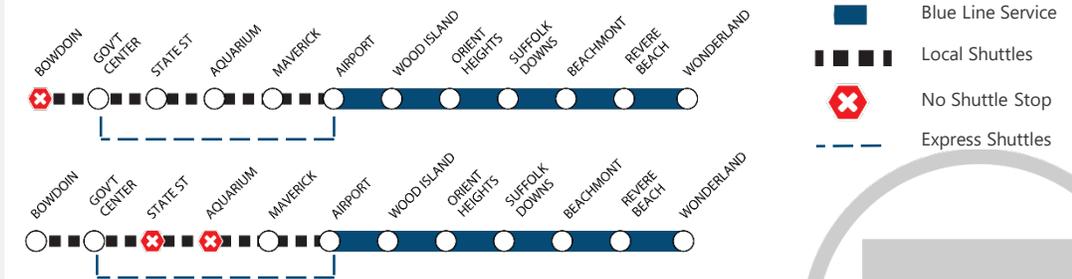
May 18 - 31



8,292 Riders Utilizing Transit during COVID-19

- Local Shuttles** between Airport and Bowdoin
- Express Shuttles** direct between Airport and Government Center

Total Number of Shuttles (1:1 local and express):
74 Weekday | 21 Weeknight Early Access | 23 Sat | 17 Sun



*Shuttle coordinators will monitor ridership to ensure adequate number of shuttles are available to support social distancing guidelines

GLX/Commuter Rail | 7-Day Full Closure

GLX

North Station – Anderson RTC (Lowell Line)

Cost Recovery | May 18 – May 24 (7 Days)

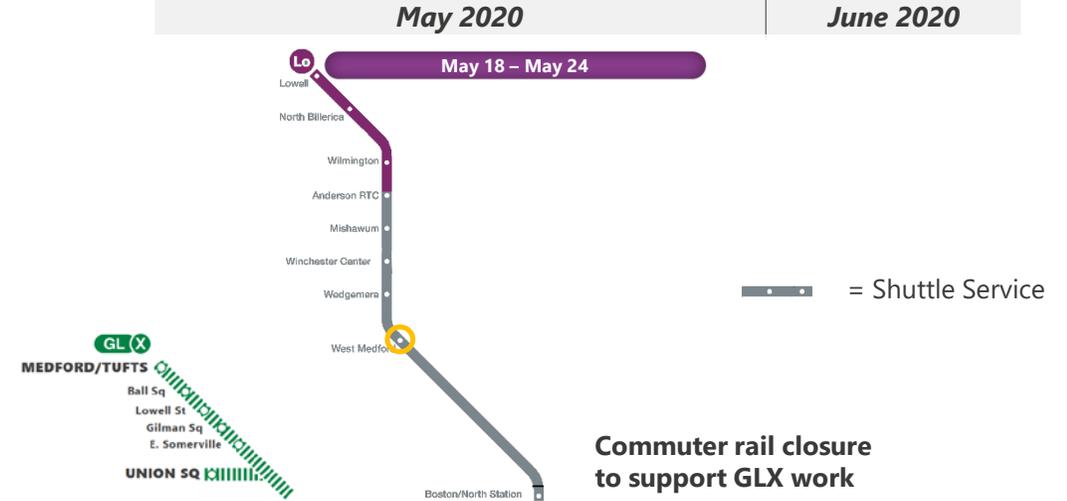
Reducing schedule risks:

- Install two (2) critical cross-track drainage lines beneath **Tufts Interlocking** in Medford
- Reduces schedule risk to achieving on-time revenue service on the GLX Medford Branch

Savings | Reduced Impacts on Riders and Communities

	Proposed	Cost Recovery	Savings✓
 Service	7 Days One 7-Day Closure	\$2 Million	 \$2 Million Saved

Work Area



Benefits

-  Mitigate safety underneath a critical interlocking
-  Bring results to riders sooner

Service Impact

May 18, 2020 – May 24, 2020  **1,091 Riders Utilizing Transit during COVID-19**

- Full weekday and weekend closure

Alternative Service

Shuttle Buses provided North Station – Anderson RTC

- Number of Buses: **TBD Weekday | TBD Sat | TBD Sun**



*Shuttle coordinators will monitor ridership to ensure adequate number of shuttles are available to support social distancing guidelines

MBTA By the Numbers



MBTA by the Numbers



Red Line
» 218 Vehicles » 22 Stations/Stops



Green Line
» 206 Vehicles » 66 Stations/Stops



Orange Line
» 120 Vehicles » 20 Stations/Stops



Blue Line
» 112 Vehicles » 12 Stations/Stops



Mattapan Line
» 10 Vehicles » 8 Stations/Stops



Bus
» 1,055 Vehicles » 7,690 Bus Stops
» 9 Garages » 175 Bus Routes
» 3,244 Bus Route Miles



Commuter Rail
» 90 Locomotives » 420 Coaches
» 137 Stations » 394 Track Miles
» 5 North Side Lines » 7 South Side Lines
» Operated by Keolis



Ferry
» 12 Boats (3 owned by the MBTA)
» 7 Terminals
» 3 Routes
» Operated by Boston Harbor Cruises

Employee Availability Is Key Driver of Service Availability

- The MBTA has **6,385 employees**, including 2,683 operators of passenger vehicles.
- The MBTA has 158 overall positive cases among employees:
 - 68 confirmed active cases
 - 8 unconfirmed cases
 - 81 recoveries
 - 1 loss of life
- The MBTA has 1,163 cumulative leaves related to COVID-19:
 - 690 closed cases
 - 473 open cases
- 25% of bus operators are not available on a typical day over the last week; primarily due to COVID-19 related leave



Ridership

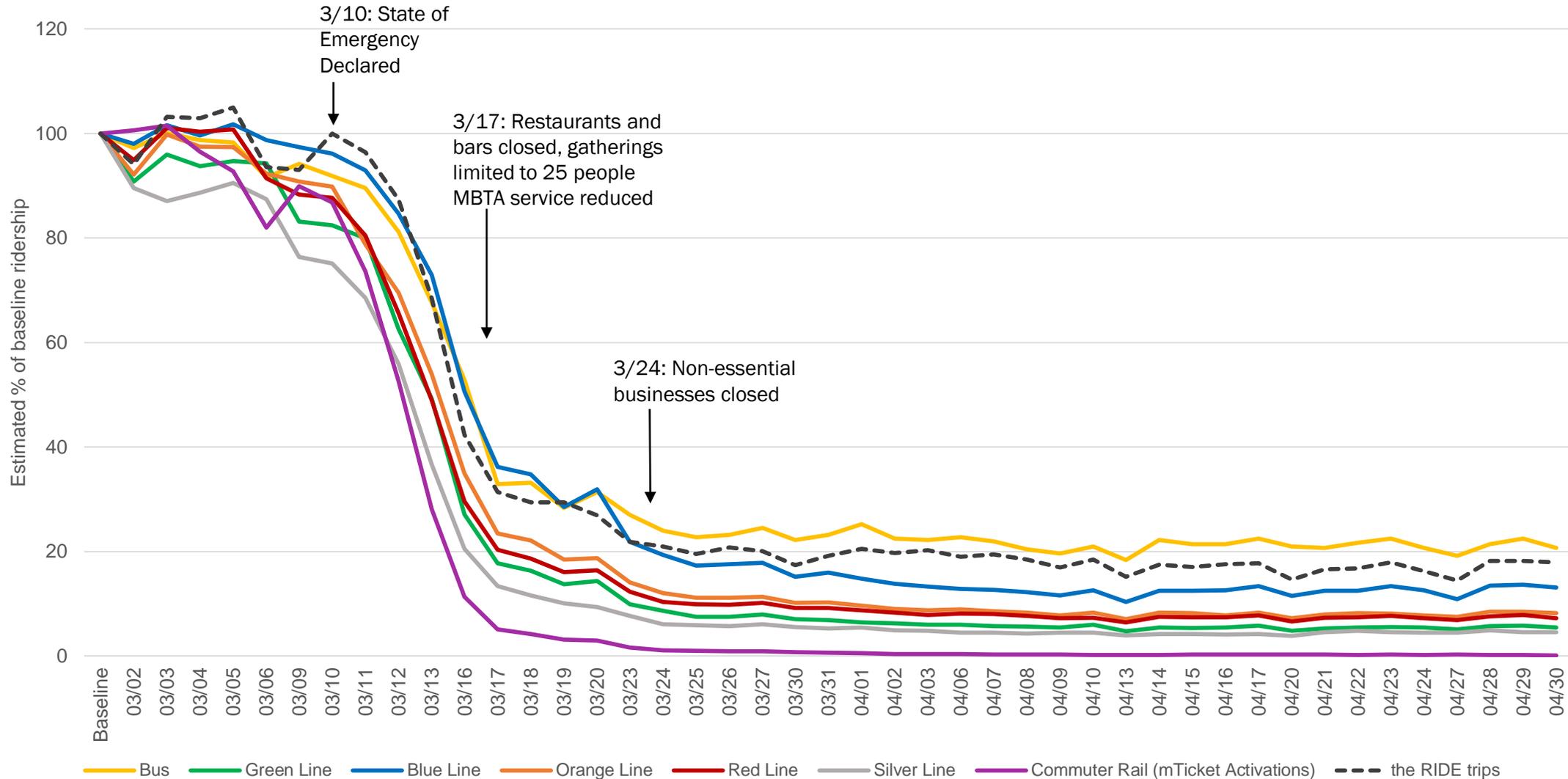


Overall Ridership Trends

- **Subway** ridership increased slightly last week but remains. Validations at gated stations averaged about 42,000 last week, about 7% higher than the previous week.
- **Bus** ridership also increased slightly last week. Weekday ridership averaged 93,000 trips last week.
- **Commuter Rail** ridership continues to be very low.
- **The RIDE** trips have declined to a steady 16% of baseline ridership.

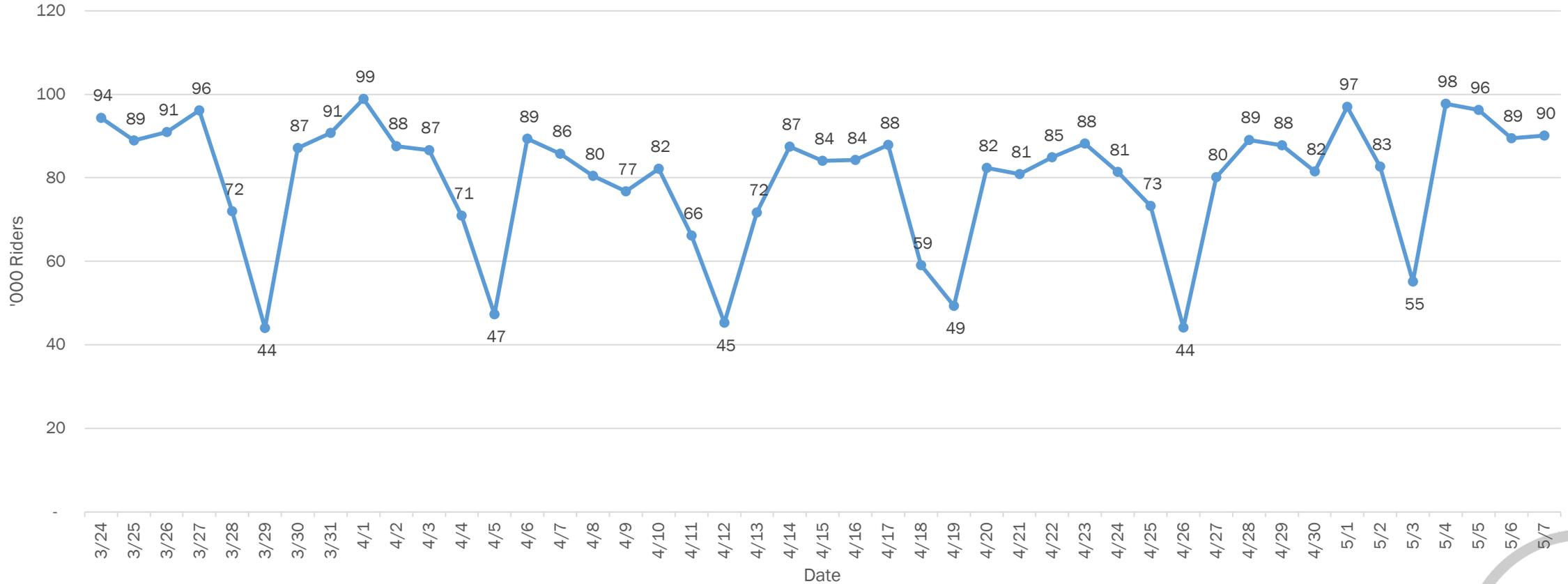


Weekday Ridership by Line and Mode - Indexed to Week of 2/24



Bus Ridership

Total Daily Bus Riders, March 24 – May 7

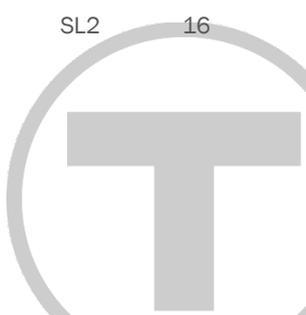
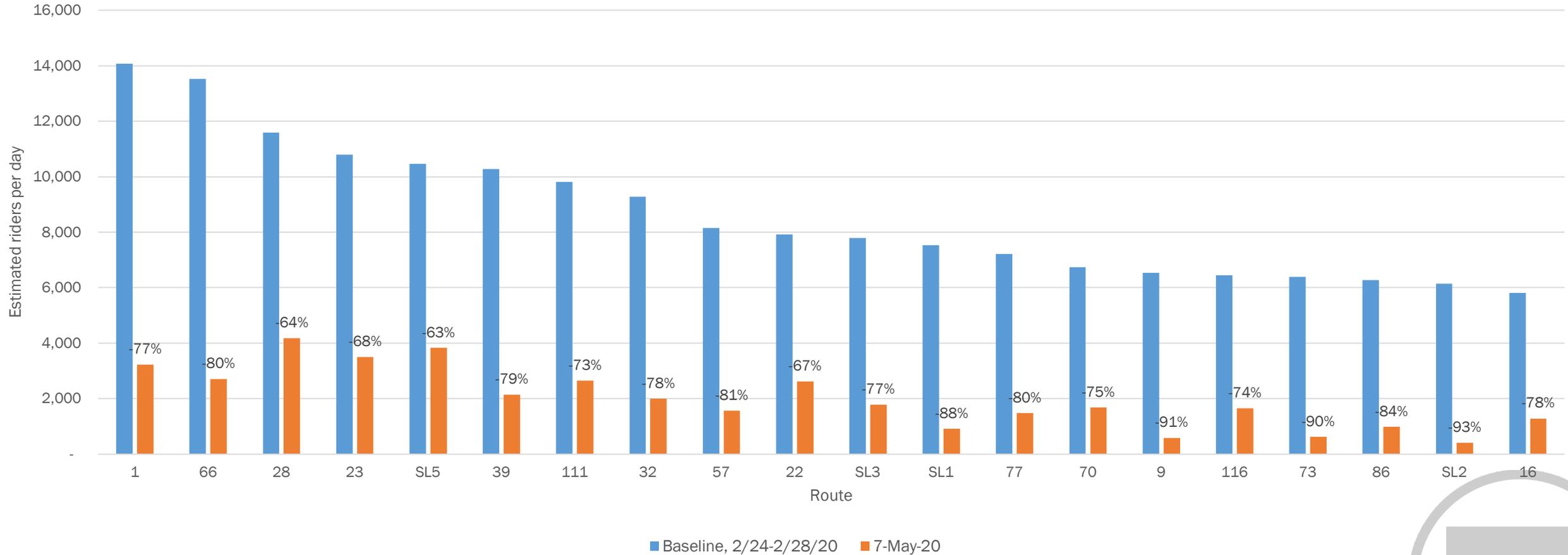


MBTA buses had an average of 392,000 trips during the baseline week



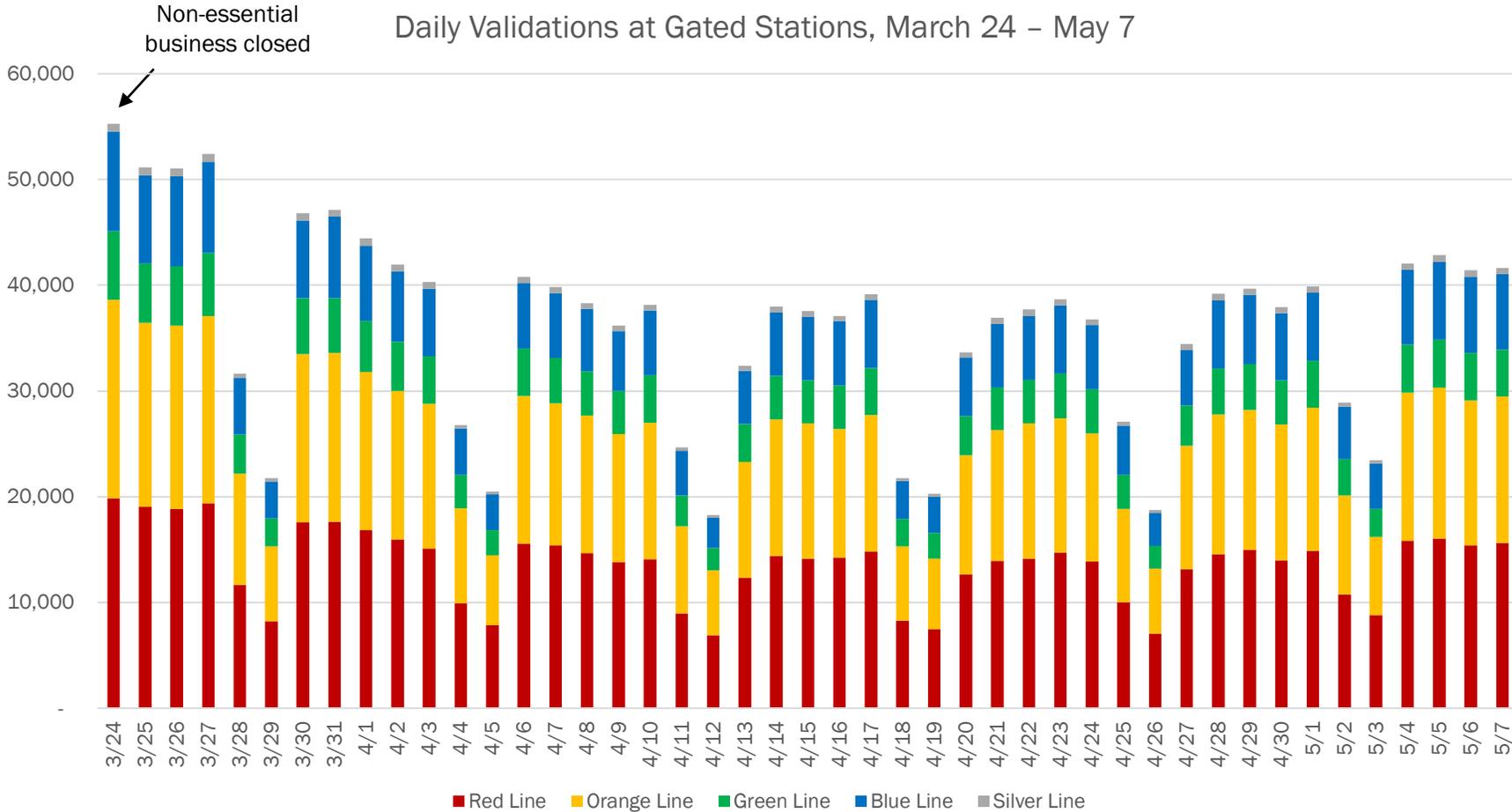
Bus Ridership: Top 20 Routes

Top 20 Bus Routes Ridership, Baseline (2/24-2/28/20) vs. 5/7/20



Gated Rapid Transit Stations

Daily Validations at Gated Stations, March 24 – May 7

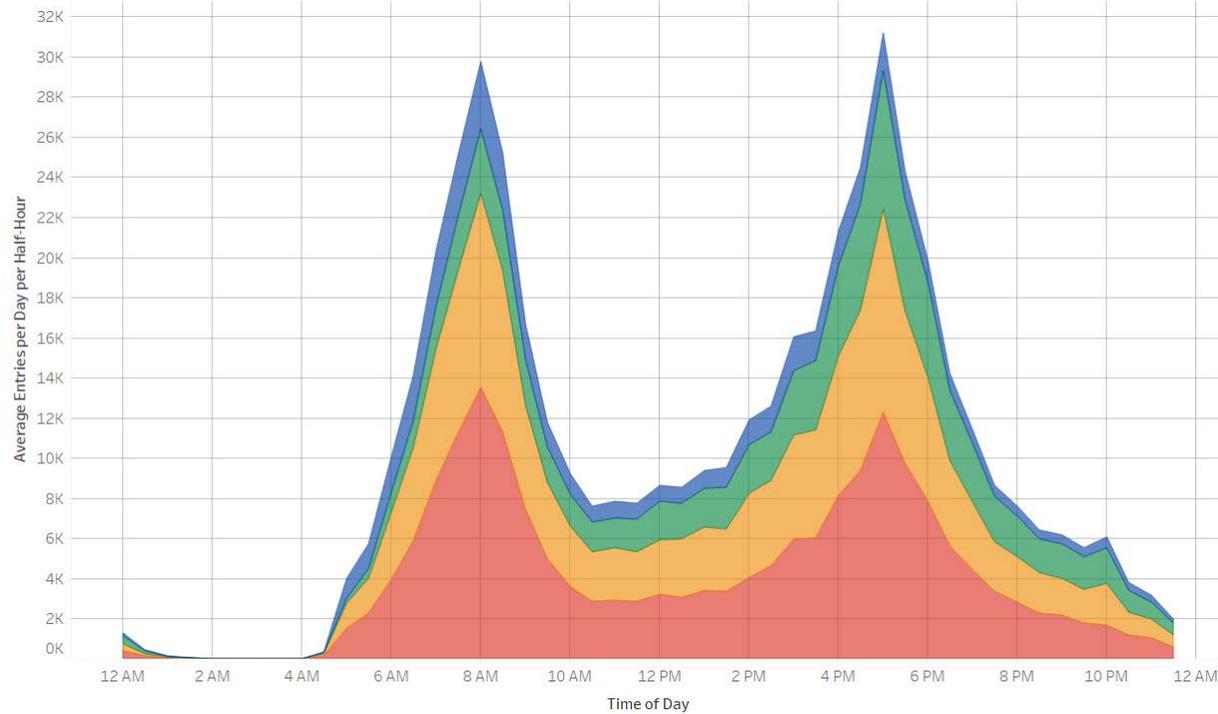


Line	Change in validations from baseline to May 7
Blue Line	-85.1%
Green Line	-94.1%
Orange Line	-91.1%
Red Line	-91.8%
Silver Line	-95.2%
Total Gated Stations	-91.4%



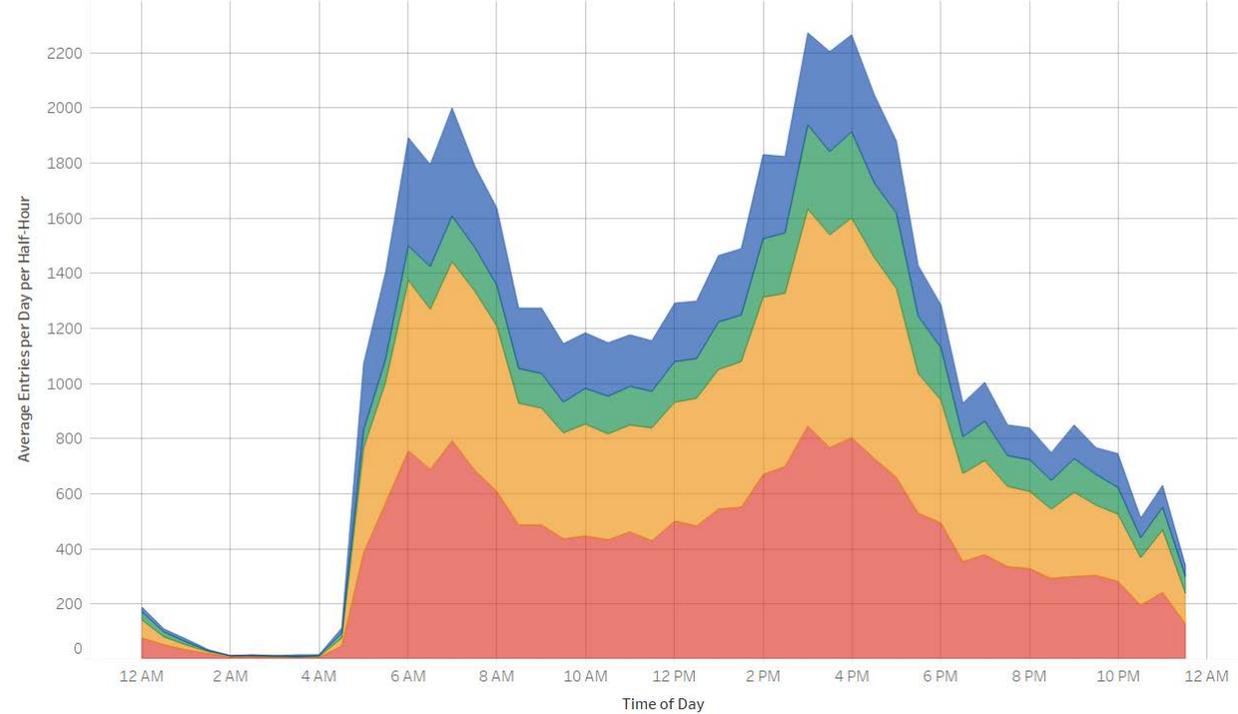
Ridership by Time of Day

MBTA Validations by Half-Hour - 2/24/20-2/28/20



- During the baseline, there are significant, defined peaks on every line.
- Roughly 30,000 validations occurred during both the 8:00-8:30 AM period and the 5:00-5:30 PM period.
- There is also a smaller peak at around 3 PM when school gets out, especially on the Orange Line.

MBTA Validations by Half-Hour - 3/24/20-3/27/20



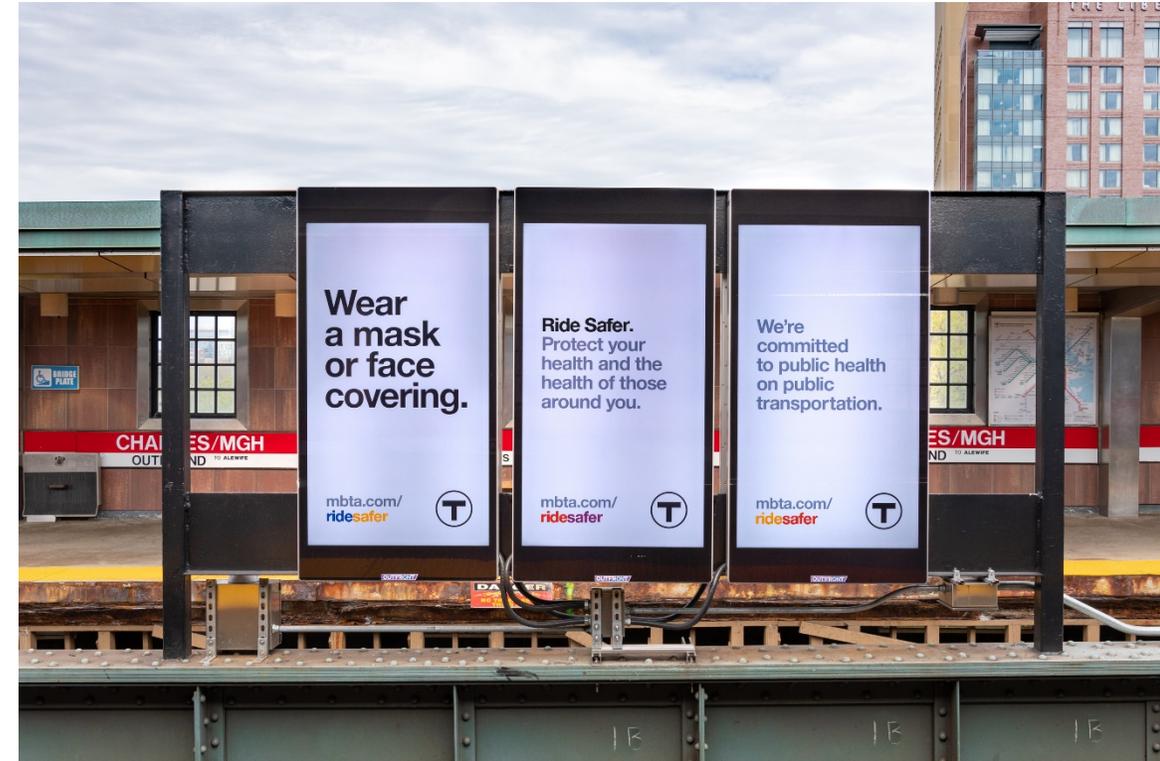
- During the week of March 24-27, peaks are less defined and occur earlier than normal.
- In the morning, most taps occur from 7-7:30 AM or 6-6:30 AM, while 8-8:30 AM has fewer validations.
- In the afternoon, most taps occur from 3-4:30 PM, rather than the usual peak at 5 PM.
- This seems to correspond with the traditional 3 PM and 7 PM shift change times at hospitals.

Protecting Employees and Riders



Face Coverings

- 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.



Personal Protective Equipment

Face Coverings

- Received major shipment of masks last week, which are being verified to insure they meet quality standards
- Second mask kitting session scheduled for Wednesday, May 13
 - 60,000 masks to be kitted to cover all employees physically reporting to work
- Procurement of 125,000 reusable cloth face coverings in process to provide front line employees with 10 coverings 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 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



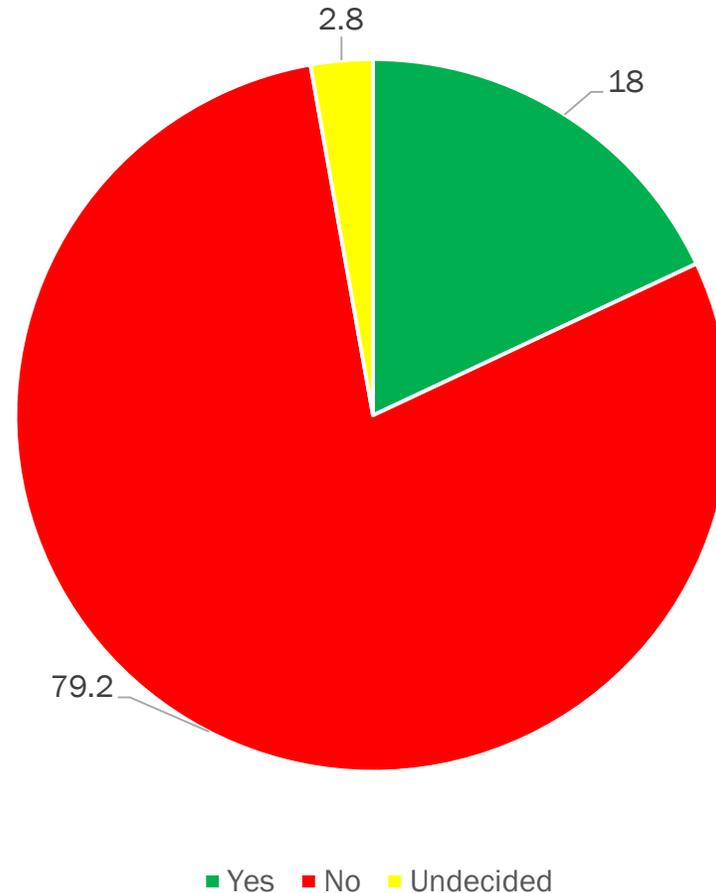
Service Delivery, Social Distancing, and Responses



We don't know if the initial challenge will be transit crowding, transit under-use, or a combination of the two

Boston Globe/Suffolk University Poll:

% of Massachusetts residents comfortable riding buses, subways, and commuter trains **once these "activities are allowed"**



**Note: poll did not ask if respondents were previous T riders. More work is necessary to understand T customer concerns and preferences.*



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>

Preparing to Ramp Up Service

- Continue to provide best-in-class disinfecting and cleaning to protect employees and riders
- FY21 budget assumes that the MBTA will need to run its full service schedule across all modes, even while ridership (and therefore fare revenue) will not reach pre-pandemic levels even by the end of that fiscal year
- Beginning to analyze the risk that transit will be seen as “too crowded,” as “crowding” is redefined to address employee and customer concerns
- Crowding depends on demand (how many riders return to the different transit modes) and supply or capacity
- The MBTA’s ability to supply capacity is affected by
 - **Workforce availability:** COVID-19 is currently limiting daily availability, particularly of bus drivers
 - **Vehicle capacity:** how many riders can fit on a bus or subway or commuter rail car before it is too crowded?
 - **Throughput:** how many vehicles are providing service over the course of an hour or the day?



Keeping a Close Eye on Buses

- Durability of ridership/customers with fewer alternatives
- Analyzing different scenarios for both the return of ridership and for how many passengers can use a bus without feeling “crowded,” in order to be ready if as ridership comes back
- For example, if ridership grows back to 50% of baseline, but social distancing expectations effectively lower vehicle capacity to 20 passengers per bus (rather than 53):
 - 1200+ trips per weekday, or 9% of all weekday trips, would be “crowded”
 - 51% of crowded trips would be on key bus routes, despite these routes accounting for only 34% of total bus trips
 - 13% of Key Bus Route trips would be over capacity



Adopting Supply-Side Strategies

- 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 by 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

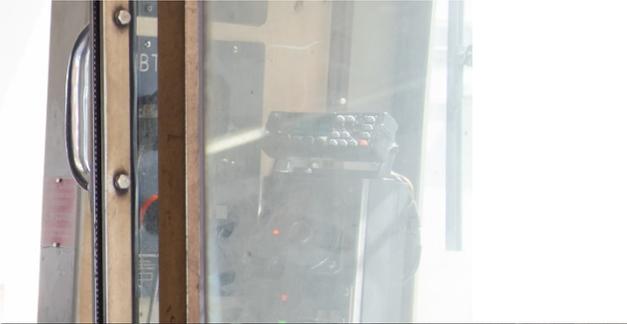


Strategies to Reshape Commuting Patterns in Metro Boston

- Reduce all commuting, addressing both potential transit crowding and renewed traffic congestion
 - Telecommuting options: work from home (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 modes/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



To Our Essential Workforce:



THANK

YOU!

