Report from the General Manager

Fiscal and Management Control Board
June 22, 2020
Safety Review Panel Update
On June 27, the FMCB convened the Safety Review Panel (SRP) to perform a detailed review of the MBTA’s safety performance, leadership, and culture.

- Reviewed safety policies, procedures, job descriptions, accident reports, records
- Facilitated over 100 collaborative discussions with staff
- Led six focus groups to discuss specific concerns
- Conducted onsite observations of select equipment, infrastructure and activities

Findings and recommendations were presented in six categories organized around SMS pillars:

- Safety Policy
- Safety Risk Management
- Safety Assurance
- Safety Promotion
- Financial Review
- Safety Culture

*Definition/criteria for “monitoring phase” to be further refined*
• **Immediate Actions**
  - Posted the SRP Report in its entirety on MBTA.com
  - Immediately communicated about the Report with all employees via email and snail mail
  - Immediately communicated about the Report to the general public via press release
  - Held internal meetings to discuss the report’s findings and develop a response plan
  - Initiated immediate actions related to observed or alleged hazards, some of which began prior to the issuance of the Report (e.g. corrective actions, third-party infrastructure inspections)

• **Long-Term Actions**
  - Framed as not just a response but a cultural shift in how the MBTA views and manages safety
  - Created an executive management strategy
  - Engaged managers across the Authority
  - Developed a list of over 165 initiatives to not only address the Report’s findings but also to make a deliberate change in how safety is embodied in our work everyday
Safety Initiatives

- These initiatives respond directly to the SRP recommendations but also build an organizational framework for making the MBTA a leader in transit safety.

- Initiatives bring together employees from departments across the Authority in a collaborative effort to create a culture where safety, service, equity, and sustainability are core values.

- Initiatives go beyond just “checking off” the SRP recommendations.

Number of Initiatives: 165

Initiatives in Monitoring Phase: 34*

*Definition/criteria for “monitoring phase” to be further refined
Safety Initiatives Governance Structure

Executive Sponsor Team

PMOs

Culture
Workforce Development
Infrastructure /KPI/PMI
Safety Oversight & SMS

Core Team Working Groups

Core Team Lead

Executive Sponsors
Measuring Safety Performance

• Although safety-related data has historically been tracked and reported to management and FMCB, targets were not identified

• Safety performance objectives and targets have been established in Transit Safety Plan

• Safety performance reporting:
  • Weekly emails to the GM
  • Revised and enhanced monthly reports with targets
  • Performance metrics go beyond FTA/NTD required reporting

• Ongoing work:
  • Working towards future leading indicators
  • Refining dashboard application
  • Working with Customer Experience to communicate safety performance across MBTA

Developed Transit Safety Plan

• MBTA began development of the Transit Safety Plan in November 2018
  • Plan will guide SMS implementation

• Organizational and Safety Department PTASP and SMS gap analyses were completed
  • Results were presented to the GM
  • Transit Safety Plan and SMS Implementation Plan were adjusted accordingly

• MBTA Transit Safety Plan will be presented for FMCB approval later today
### Third-Party ROW Inspections

- Over 162 miles of revenue and non-revenue track on the Red, Orange, Blue and Green Lines have been inspected by HNTB
  - Inspections involved all “visible” elements on the ROW, including track, signal, power, and miscellaneous elements
- Prioritized and tracked corrective actions
  - Level 1 actions were addressed immediately
  - All Level 1 and 2 actions have been completed
- These inspections addressed 16 safety initiatives

### Preventative Maintenance & Inspections (PM&I)

- PM&I improvement program established in December 2019 with the following goals:
  - Asset Data Collection & Digitization
  - PM&I Digitization & Tracking
  - Mobile Software Development
  - Improving Inspection Methods
- Working toward implementation of digital PM&I tracking for critical assets, which is on target for completion for in fall 2020
  - 31 discrete schedules or tests are classified as Safety Critical
- Following the digitization of critical asset PM&I schedules, the MBTA will move on to digitizing System Critical & Routine PM&I schedules (72+) and introducing improvements and best practices.
## Initiative Updates: Safety Risk Management

### Accident/Incident Investigation & CAP Tracking
- Engaged third-party expert to review closed CAPs over a 2 year period
  - Determined CAPs were closed properly but made recommendations to improve CAP tracking process
- Engaged third-party expert to review and enhance accident/incident investigation process. Work is under way:
  - Draft A/I investigation manual was just completed
  - Training program will include LMS element
  - Enhanced CAP/mitigation development and tracking process and procedure is included in this effort

### Gap Analysis
- Organizational and Safety Department PTASP and SMS gap analyses were completed
  - Results were presented to the GM
  - Transit Safety Plan and SMS Implementation Plan were adjusted
Initiative Updates: Safety Risk Management

Additional Safety Areas of Emphasis

• Work continues on enhancing worker safety programs and compliance with OSHA standards

• Additional Capacity
  • Night coverage enhanced
  • Safety Department just added a new Deputy Director of Occupation Health and Safety and an Industrial Hygienist
  • Additional SMEs in hiring pipeline

• New employee onboarding

• Enhanced commuter rail fatigue program

Benchmarking

• Benchmarking activities undertaken in 2019:
  • KPIs
  • Safety procedures, inspections, programs
  • Safety Department structure and SMEs
  • Training
  • Human Resources
# Initiative Updates: Safety Assurance

## Executive and Senior Leadership

- **Regular meetings** to communicate and engage staff:
  - Executive Staff Meetings
  - Senior Staff Meetings
- Improved and more transparent **budget process**
- **Weekly safety performance updates** to GM
- **Monthly meetings** to discuss safety with GM
- Safety Department provides a **daily update** on the previous day’s accidents/injuries and Safety Hotline calls on the 7:45 am Operations call

## Employee Reporting

- Enhancements to Safety Hotline/Notification System
  - **Improved process** for handling calls
  - Respond to caller **within 24 hours**
  - **Track** calls to closure
  - Continued messaging of Safety Hotline has yielding **increased call/notification volume** – a good thing!
Initiative Updates: Safety Assurance

**Quality Control/Quality Assurance (QA/QC) Program**

- Quality Control/Quality Assurance (QA/QC) Program
- Established new **Department of Quality Management**
- New **Director of Quality Management** reports to Senior Director of Reliability and Engineering
  - Two sub-departments with Deputy Directors: **Vehicles** and **Infrastructure**
  - Conducts internal audits and third-party **audits**
  - Developing **dashboard** and monthly reporting structure
  - Developed new process – 31 **safety critical PM&Is** accepted quality level sample plan
  - **Vehicles** - Deputy Director of Vehicles
    - Deputy Director of Infrastructure
    - Developed QA/QC department structure and mission
  - Currently an 8-person department with plans to expand

**Green Line Speed Control**

- **Green Line Speed Reduction Initiative** is a cross-departmental, comprehensive program for reducing speeding incidents on the Green Line
- 300-500 **lidar gun speed detection tests** are performed each month
- New **speed monitoring zones** have been established using geo-fencing
  - This tech captures and reports back data on vehicle speed in real time
- **9 real-time speed notification signs** have been strategically placed along the Green Line
Training

- Centralized training initiative Cornerstone LMS is well under way
  - Includes improved training tracking element
- ROW Training
  - Class sizes are limited to 30 students
  - Contractor ROW Recertification Program has been moved online due to COVID-19
  - Online training for all MBTA employees is under development
- SMS Training
  - SMS Orientation training program has been drafted
  - Hazard tracking and SRM training are under development
Initiative Updates: Safety Promotion/Culture

**Strategic Planning**

- Refined **mission, vision, and values** in an employee-led process
- Engaged in facilitated deep dialogue and leadership development focused on how the MBTA functions
- **110 senior managers** were chosen to represent the diversity of roles at the MBTA, and **over 6,000 staff hours** were committed to aligning our efforts in improving our culture
- A more engaged and supported workforce will deliver a higher quality of service and a safer workplace culture for all
- The **Strategic Planning Committee for Implementation** has also supported the Safety Initiatives project management team in ensuring that our processes are collaborative and cross-functional

**Internal Communications**

- Customer Experience has enhanced communication not only with customers but also with employees across the MBTA
- **Use of Everbridge platform** allows inclusive communication with all employees, even those without MBTA email addresses
- **Weekly videos** allow interaction and dialogue between the GM and employees, especially about critical issues such as living and working safely during a pandemic
- **Between the Lines quarterly newsletter** is physically mailed to all employees, allowing for deep and inclusive engagement
- **Social Media Employee Spotlight Series** puts a human face on the MBTA and offers an opportunity to celebrate high-performing employees
- **Internal Digital Communications Project** is overhauling the MBTA Intranet and has already piloted a mobile responsive site to be launched this summer
COVID-19 Impacts on Safety Initiatives

• Progress on some initiatives has been impacted by COVID-19
  • Staff capacity: some staff time redirected to address urgent COVID-19 safety matters (PPE, decontamination)
  • Budget: decline in revenue has put pressure on initiative budget and hiring
  • Logistics: some activities were limited/postponed due to social distancing requirements

• In some cases, the MBTA has turned an impediment into an opportunity:
  • Internal communications: GM videos, regular emails, Everbridge use
  • Back-up OCC usage
  • Vehicle Maintenance: reliability improvements are safety improvements
  • Learning Management System course offerings and course development
  • QA/QC of decontamination work
Next Steps

• The MBTA will continue to make progress on these initiatives and report on progress to the Board as well as the Department of Public Utilities

• The Safety Initiatives Project Management Team will continue to improve the management process:
  • Define prioritization criteria and classify initiatives within prioritization framework
    • Prioritization is always critical to ensure alignment and marshal limited resources, especially given COVID-19 and fiscal constraints
  • Identify budget and manpower needs and project constraints
  • Finalize work plan for FY21 based on prioritization
Ridership Update

Overall Trends
Rapid Transit Ridership
Bus Ridership
Overall Ridership Trends

• Bus ridership was consistent from last week to this week, averaging about 130k passengers per day (30% of baseline).

• Subway gates recorded about 73k taps per day this week (15% of baseline). This continues the increasing trend in validations, growing at least 10% each week since late May.

• Commuter Rail and the RIDE have inched up as well and are now at roughly 3.9% and 35% of our baseline week, respectively.
## Gated Rapid Transit Stations

<table>
<thead>
<tr>
<th>Line</th>
<th>Change in validations from baseline week (2/24-2/28) to June 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Line</td>
<td>-71.5%</td>
</tr>
<tr>
<td>Green Line*</td>
<td>-89.1%</td>
</tr>
<tr>
<td>Orange Line</td>
<td>-83.7%</td>
</tr>
<tr>
<td>Red Line</td>
<td>-86.2%</td>
</tr>
<tr>
<td>Silver Line</td>
<td>-91.0%</td>
</tr>
<tr>
<td>Total Gated Stations</td>
<td>-84.5%</td>
</tr>
</tbody>
</table>

*Green Line shuttling North Station – Lechmere & D Branch
Bus Ridership Trends

- Ridership estimated from APCs, some uncertainty given additional RAD trips that are challenging to account for
- Ridership for recent days is continuously revised
Bus Ridership Top 20 Routes

Daily Bus Ridership, Baseline (2/24-2/28/20) vs. 6/18/20, Top 20 Routes by Ridership
Service Increase
Bus: Expanded Emergency Service Levels

- **Starting June 21st - Expanded Emergency Service**
- **Service Level**
  - Increased scheduled service on high-demand routes starting June 21
  - This schedule accounts for ~80% of routes operated on a typical weekday and ~70% of total trips
  - Saturday and Sunday will operate regular service
- **Major Changes from Phase 1**
  - Fellsway and Albany garages are open
  - ~650 additional scheduled trips
  - Many routes start earlier in the day to resemble weekday span of service
  - 30% of service will be available via Run as Directeds, which are unscheduled but offer flexibility to supplement routes showing higher ridership
  - All available service will be operating, but concentrated on only 80% of routes

### Change of Routes

<table>
<thead>
<tr>
<th>Change</th>
<th># of routes affected</th>
<th>Route numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routes resuming that were not</td>
<td>2 routes</td>
<td>19 &amp; 245 (serve medical areas or hospitals)</td>
</tr>
<tr>
<td>operating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Routes suspended that were operating</td>
<td>5 routes</td>
<td>325, 326, 351, 352, 501</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All routes (w/ exception of part of 351) have alternative option</td>
</tr>
<tr>
<td>Routes with reduced service</td>
<td>6 routes</td>
<td>7, 43, 77, 120, 504, SLW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(in most cases, reducing to typical Saturday service vs. Saturday holiday)</td>
</tr>
<tr>
<td>Routes with added service</td>
<td>57 routes</td>
<td>Notable changes are 11 routes gaining more than 30 trips:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Route 1 (63 trips), Route 23 (40 trips), Route 31 (32 trips), Route 32 (40 trips), Route 57 (36 trips), Route 65 (49 trips), Route 66 (44 trips), Route 70 (36 trips), Route 104 (46 trips), Route 109 (54 trips), Route 111 (147 trips)</td>
</tr>
</tbody>
</table>
# Subway: Regular Service

<table>
<thead>
<tr>
<th>Weekday Headways (min)</th>
<th>AM Peak</th>
<th>Midday</th>
<th>PM Peak</th>
<th>Evening</th>
<th>Late Night</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Red Trunk/Branch</strong></td>
<td>4.5 / 9</td>
<td>7 / 14</td>
<td>4.5 / 9</td>
<td>6 / 12</td>
<td>6 / 12</td>
</tr>
<tr>
<td><strong>Orange</strong></td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td><strong>Blue</strong></td>
<td>5</td>
<td>9</td>
<td>5</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weekday Headways (min)</th>
<th>AM Peak</th>
<th>Midday</th>
<th>PM Peak</th>
<th>Late Night</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td>5/6</td>
<td>7/8</td>
<td>5/6</td>
<td>9</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>6/7</td>
<td>9/10</td>
<td>7/8</td>
<td>10/11</td>
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<tr>
<td><strong>D</strong></td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>11</td>
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<tr>
<td><strong>E</strong></td>
<td>6</td>
<td>8</td>
<td>6/7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Mattapan</strong></td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>
Commuter Rail: 85% of regular service

• Increases service from 252 trains per day to 445 (85% of the normal schedule)
• Increases the number of peak services on each line and also runs all normal midday trains
• Fairmount Line will receive the full planned service, an increase of 8 additional trips compared to before the pandemic
# Fairmount Line Pilot

## FAIRMOUNT LINE with FOXBORO PILOT

**Summer 2020 schedule, effective June 22, 2020**

| Monday to Friday |
|------------------|------------------|
| **Commuter Service** | **All** |
| 8:30 - 10:15 AM | 8:30 - 10:15 AM |
| 2:45 - 4:15 PM | 2:45 - 4:15 PM |
| 7:25 - 7:30 PM | 7:25 - 7:30 PM |

<table>
<thead>
<tr>
<th>Tuesday to Saturday</th>
<th><strong>All</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 10:15 AM</td>
<td>8:30 - 10:15 AM</td>
</tr>
<tr>
<td>2:45 - 4:15 PM</td>
<td>2:45 - 4:15 PM</td>
</tr>
<tr>
<td>7:25 - 7:30 PM</td>
<td>7:25 - 7:30 PM</td>
</tr>
</tbody>
</table>

**Notes:**

- **Commuter Service:** Runs on weekdays only, except during holidays and special events.
- **All:** Runs on weekdays and weekends, except during holidays and special events.

## Personalized Service

<table>
<thead>
<tr>
<th>Monday to Friday</th>
<th><strong>All</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>4:48 AM</td>
<td>4:48 AM</td>
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<tr>
<td>5:00 AM</td>
<td>5:00 AM</td>
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<td>5:48 AM</td>
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<td>6:55 AM</td>
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<td>7:15 AM</td>
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<td>7:25 AM</td>
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<tr>
<td>7:40 AM</td>
<td>7:40 AM</td>
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<tr>
<td>7:55 AM</td>
<td>7:55 AM</td>
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<tr>
<td>8:07 AM</td>
<td>8:07 AM</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Monday to Saturday</th>
<th><strong>All</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>5:15 AM</td>
<td>5:15 AM</td>
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<tr>
<td>5:45 AM</td>
<td>5:45 AM</td>
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<td>8:07 AM</td>
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<td>8:09 AM</td>
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<td>8:11 AM</td>
<td>8:11 AM</td>
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<tr>
<td>8:20 AM</td>
<td>8:20 AM</td>
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</tbody>
</table>

**Notes:**

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- **All:** Runs on weekdays and weekends, except during holidays and special events.

## Weekend Service

<table>
<thead>
<tr>
<th>Saturday &amp; Sunday</th>
<th><strong>All</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>6:50 AM</td>
<td>6:50 AM</td>
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<tr>
<td>7:58 AM</td>
<td>7:58 AM</td>
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<tr>
<td>8:58 AM</td>
<td>8:58 AM</td>
</tr>
<tr>
<td>9:58 AM</td>
<td>9:58 AM</td>
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</tbody>
</table>

**Notes:**

- **Commuter Service:** Runs on Saturdays only, except during holidays and special events.
- **All:** Runs on Saturdays and Sundays, except during holidays and special events.

## Keep in Mind:

- **Commuter Service** will be affected from June 22, 2020, and the schedule will be in effect until October 31, 2020.
- **All** services will be affected from June 22, 2020, and the schedule will be in effect until October 31, 2020.

**Notes:**

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## Service Changes:

- **Commuter Service:** Runs on weekdays only, except during holidays and special events.
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**Notes:**

- **Commuter Service:** Runs on weekdays only, except during holidays and special events.
- **All:** Runs on weekdays and weekends, except during holidays and special events.

## Additional Services:

- **Commuter Service:** Runs on weekdays only, except during holidays and special events.
- **All:** Runs on weekdays and weekends, except during holidays and special events.

**Notes:**

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## Face coverings are required

For public safety, face coverings are required on all MBTA vehicles and in buildings. Masks are available on board.

## MBTA.com

Visit MBTA.com to learn more about the MBTA and find the latest updates.

## Social distancing whenever possible

For the health and safety of all riders, please practice social distancing whenever possible.
Ferry: Limited Service to Hingham, Hull, & Charlestown

• Service Level beginning June 22:
  • Service resumes to Hingham, Hull and Charlestown with approximately 75% of regular weekday service
  • No weekend service with reduced schedule
The RIDE: No Changes

• No changes to service area or span of service
• Trips will continue to be limited to 1 customer/party per trip
• If the number of trips exceeds 2500 per day, it may be necessary to move from 1 customer to 2 customers per trip
Ride Safer

Social Distancing
Employee Protection
Cleaning and Decontamination
Social Distancing as Feasible

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

• Will provide guidance; not space by space markings

• Will focus on high volume locations
Employee Protection

- Face Coverings Required
- Additional PPE for Employees
  - Hand Sanitizer
  - Enclosures for Bus Drivers
- Temperature Screening for Employees
- COVID-19 Testing for Employees
Cleaning and Decontamination

Stations and Facilities

- **Daily** cleaning
- **2x per day**: disinfecting touch points in high-traffic facilities
- **Every 4 hours**: disinfecting touch points on surfaces such as handrails, fare gates, and fare vending machines in core subway stations
- Hired additional vendors for disinfecting using chemical fogging, electrostatic sprayers and manual disinfecting wipes/solutions

Bus and Rail Vehicles

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

• This month, launching real-time crowding data for first set of bus routes: 1, 15, 16, 22, 23, 31, 32, 109, and 110
• Available on mbta.com, e-ink signs, and Transit app
• Largest US agency to release real-time crowding on local buses
• This summer:
  • Rolling release of real-time data on more bus routes
  • Recent crowding trends for digital trip planning

(draft designs, not final)
Major Project Updates

Positive Train Control
Fare Transformation
Red/Orange Line Transformation
FMIS
Construction Schedule
PTC: Current Activities and Progress

• The PTC Program is on schedule to be completed before December 31, 2020 in full compliance with FRA PTC regulations
  • All 15 of the MBTA’s Commuter Rail lines have PTC in operation (370 of 394 route miles - 94%)
  • Implementation is proceeding on the last segment (the Worcester line between Framingham and Boston), which is expected to be completed in July
  • All MBTA Commuter Rail revenue vehicles have PTC equipment installed and fully operational; all defective onboard PTC equipment has been replaced and is performing well
  • Interoperability testing with tenant railroads (Amtrak, CSX, and Pan Am) is proceeding and expected to be completed in 2020 Q3
  • The PTC Safety Plan was revised per FRA comments and a final plan resubmitted on June 5th; FRA Conditional Safety Certification is expected in July
PTC: Current Activities and Progress

PTC in Operations/Terminal Areas

Field Qualification Testing (FQT) Underway

Field Integration Testing (FIT) Underway

Level 3.2 Wiring/Cutover Testing Underway
AFC: Fare Transformation Reset

**Reset Objectives Achieved**

- **Phased rollout:** Prioritizing near term improvements for bus customers and reduced fare customers
- **Achievable schedule:**
  - More time for testing, installation and migrating customers
  - Longer transition, which necessitates upgrades to the existing system
- **Improve reliability:**
  - Leverage reinvestments being made in existing fare collection assets
  - Reduce future disruption in stations
- **Community-driven process:**
  - Significantly expand the planned retail and vending machine sales network across the region
  - MBTA takes lead on a process for community input on placement of sales locations
- **Customer experience improvements:**
  - Improve the customer experience during the transition
  - Reduce customer pain associated with CharlieCard fees
  - Be more forgiving as customers learn new tap on/off behavior on Commuter Rail
- **Further strengthening the contract,** including through milestone payments and reduced construction risk

**Financial Close**

- On April 27, 2020, the FMCB authorized the General Manager to enter into an amended contract with the consortium formed by Cubic and John Laing for an amount of up to $935,411,841.44.
- On June 15, 2020:
  - The MBTA, John Laing and Cubic finalized the contract amendment memorializing the terms and conditions of the reset
  - John Laing and Cubic refinanced project debt to reflect the new schedule and scope
  - John Laing and Cubic entered into all necessary supporting agreements and subcontracts
  - The effective contract price based on market rates at Financial Close was $924,937,249.74, including capital and operating costs over the term of approximately 13.5 years

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field demonstration of new Cubic readers</td>
<td>Pilot Cubic system on bus and subway</td>
<td>Pilot the Cubic system on Commuter Rail</td>
<td>Expand pilot of the Cubic system on bus and subway</td>
<td></td>
</tr>
<tr>
<td>Starting in early ’21</td>
<td>Starting in early ’22</td>
<td>Starting in mid ’23</td>
<td>Starting in mid ’22</td>
<td></td>
</tr>
<tr>
<td>- Bus routes 28 and 39</td>
<td>- Bus routes 28, 39, SL4 and SLS</td>
<td>- Fairmount Line</td>
<td>- Bus routes 28, 39, SL4 and SLS</td>
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<tr>
<td>- Two Orange Line stations</td>
<td>- All Orange Line Stations</td>
<td>- Haverhill Line</td>
<td>- All Orange Line stations</td>
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</tr>
<tr>
<td>Cubic system available on all bus and subway</td>
<td>Jan ’23</td>
<td>Jan ’24</td>
<td>Jan ’23</td>
<td>Jan ’24</td>
</tr>
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<td>Cubic system available on all modes</td>
<td>Jan ’23</td>
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</tr>
</tbody>
</table>

Cubic system available on all modes Jan ’23 Jan ’24
Red/Orange Line Update

- Continued progress on infrastructure planning and investment
  - Will be presented later in the agenda

- Delays in production and delivery of the Red and Orange Line cars
  - COVID-19 is a factor
  - Closures in China and Springfield

- Working with CRRC MA to develop a recovery schedule
  - Process is ongoing and updates will be provided as this progresses
FMIS 9.2 Rollout

Accomplished All Project Goals

- Stabilized Application and Database Versions To Ensure Premier Vendor Support
- Upgraded Seven Existing Modules In Use on Oracle PeopleSoft Financials/Supply Chain Platform
- Implemented Transactional Approval Workflows Using Delivered Functionality
- Created All New Training Materials Accessible by E-Learning Platform
- Implemented Least-Privilege Application End User Access Posture and Governance
- Deployed 9.2 Application With Cross-Functional Service Professionals from CherryRoad Technologies, The GreenTree Group, and BTRG
- Completed Project on Budget - $5.5 million programmed; $4.7 million committed

Project Statistics

- Project Team of 112 MBTA and 3rd Party Resources
- Analyzed 1,257 End User Requirements
- Completed 1,320 Project Actions
- Executed 998 Test Scripts
- Built 139 User Guide Manuals and 22 Video Recordings
- Create 26 Training Programs for 684 End Users
- Executed On-Time Rollout Over 90 Hours Involving 76 Resources with 100% Remote Workforce
- First MBTA IT project to leverage MS Teams collaborative platform and Learning Hub, MassDOT/MBTA’s e-Learning Platform
- Handled 416 Support Incidents over 18 Calendar Days, with 50% Closed Same Day
Construction Restart Schedule | May - August

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

<table>
<thead>
<tr>
<th>May 2020</th>
<th>June 2020</th>
<th>July 2020</th>
<th>August 2020</th>
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<tbody>
<tr>
<td><strong>D Branch (Riverside to Kenmore)</strong> Two 9-Day Closures</td>
<td><strong>D Branch (Riverside to Kenmore)</strong> Two 9-Day Closures</td>
<td><strong>C Branch (Cleveland Circle to Kenmore)</strong> One 28-Day Full Closure</td>
<td><strong>E Branch (Heath to Symphony)</strong> One 28-Day Full Closure</td>
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<tr>
<td>Track &amp; Signal Improvements, Fenway Portal Flood Protection, Brookline Hills TOD</td>
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<td>Track &amp; Intersection Upgrades</td>
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<tr>
<td><strong>Red Line (Braintree to Quincy)</strong> 14-Day Closure</td>
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<td>On-call Track 2, South Shore Garages, Track Modernization</td>
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<td><strong>Blue Line (Airport to Bowdoin)</strong></td>
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<td>Harbor Tunnel Infrastructure Upgrades</td>
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<td>5/18 - 5/31</td>
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Shuttle buses will replace service

4th of July
Highlights of FY20 capital work span stations, vehicles, track, and accessibility improvements

18 Stations improved or upgraded
Including: Park Street, Wollaston, Forest Hills, State St

113,627 feet (21.5 miles) of subway track replaced or expanded
Including: Orange Line Tunnel, Cabot Yard, D Branch

16 Elevators built, replaced, or upgraded
Including: Central Square, Downtown Crossing, Tufts Medical Center
MBTA advanced variety of capital projects in FY20

<table>
<thead>
<tr>
<th>MBTA completed or opened projects, providing benefits to riders:</th>
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<tr>
<td>Projects reached Closeout...</td>
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<tr>
<td>• OL Test Track</td>
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<td>• RL Signal Trough &amp; Winter Resiliency</td>
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<tr>
<td>• East St. Bridge Replacement Project</td>
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<td>...and Substantial Completion</td>
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<tr>
<td>• Wollaston Station</td>
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<td>• GL Grade Crossing Project</td>
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<td>• Central Square &amp; Harvard Elevators</td>
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<td>Began construction on important accessibility and resiliency projects:</td>
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<tr>
<td>• GL Lechmere Viaduct Rehabilitation</td>
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<td>• OL Oak Grove Vertical Transportation Improvements</td>
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<td>• North Station Communications &amp; Signals</td>
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<td>• Systemwide Duct Bank Phase II</td>
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<td>• Wayfinding &amp; Station Improvements Phase I</td>
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<td>• Natick Center Station Accessibility Project</td>
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FY20 KPI: $1.4B Total Capital Investment - YTD Total Spending vs. Previous Years

MBTA Capital Spending Actuals ($M)

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MBTA Cumulative Capital Spending Actuals ($M)

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FY20 YTD cash expenditures (as of 6/17): $1,511 M

Cash basis
FYTD Spending through June 18, preliminary
To Our Essential Workforce:

THANK YOU!