

Accessibility Improvements

Cambridge Transit Advisory Committee Presentation

November 2, 2023

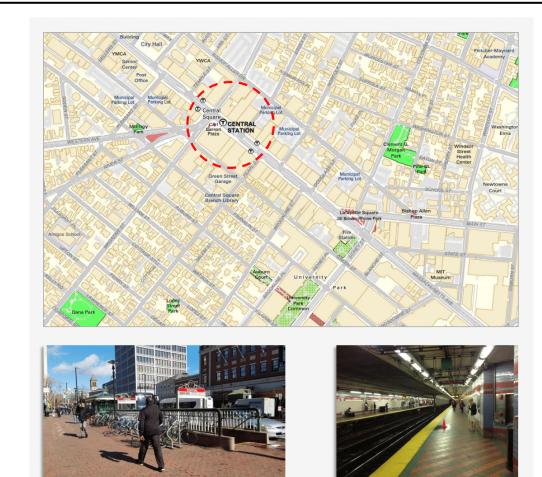
Agenda

- Project Overview
- Proposed Improvements
- Anticipated Construction Impacts
- Outreach Efforts
- Next Steps

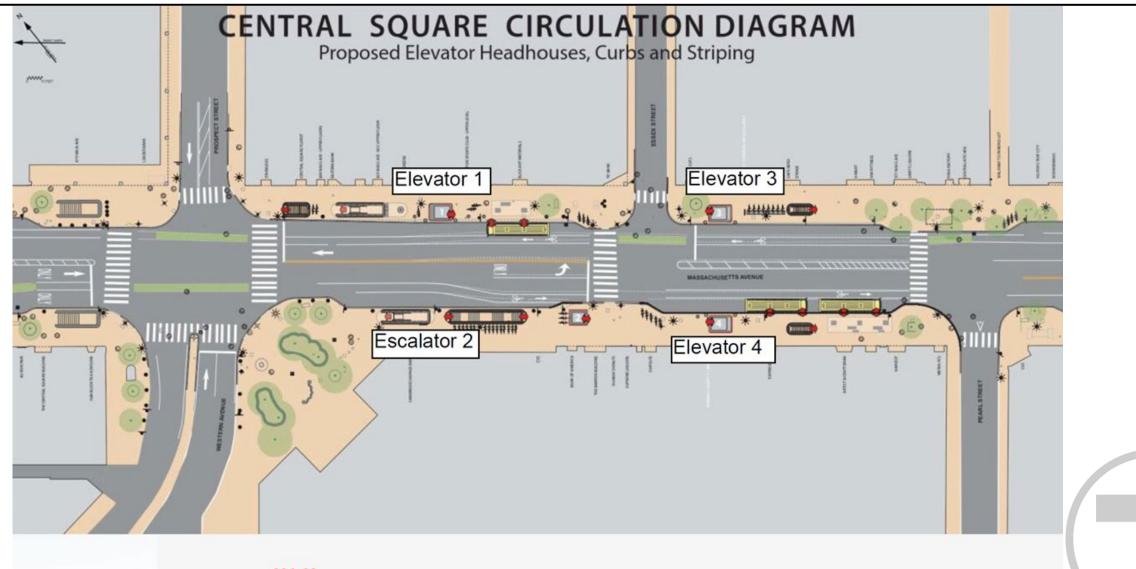


Project Overview

- Need for redundant elevators and accessibility improvements compliant with federal and state codes
- Additional improvements to the station
- Rider Benefits
 - Easier access to Red Line platforms
 - Additional station access points
 - More reliable elevator service
 - Improved rider experience and safety
 - Station modernization



Proposed Improvements



Proposed Headhouse Design



Station Brightening Repairs

Miscellaneous

- Tiles
- Concrete
- Plaster
- Tactile Warning Strip
- Benches
- Tactile tread warning surface
- Scratched Stainless Steel at FDC
- Corroded Doors







Cracked floor tile & damaged patch work



Large crack in wall tiles



Broken & missing granite tiles



Damaged Tactile Warning Strips



Damaged & scratched Benches Draft for Discussion & Policy Purposes Only



Worn out tactile tread warning surface cover on staircase



Scratched Stainless Steel Panels



Corroded Doors & Frames

Cleaning & Painting of Interior Surfaces

<u>Ceilings</u>

- Concrete
- Metal Fins
- Plaster

Walls

- Porcelain Tiles
- Mosaic Tiles
- Conc. Columns •
- Granite
- Plaster

Floors

- Tiles
- Granite

Miscellaneous

- Peeling Paint
- Graffiti
- Tactile warning strips





Ceiling Perforated Metal Fins

Ceiling Signage & Lighting **Decorative Metal Frame**



Granite

Porcelain Tiles



Mosaic Tiles







Graffiti





Inbound Platform



Stained Tactile Warning Strips



General cleaning

Public Restroom Improvements

- Public unisex restroom located on outbound platform
- General cleaning & painting required
- Updates to achieve accessibility compliance include:

View of left side of restroom

- Replacement of electric unit heater in the public restroom
- Adjustment of fixture locations to meet ADA and/or MAAB requirements, including raising toilet seat height, toilet paper dispenser, rear grab bar, sink, and mirror

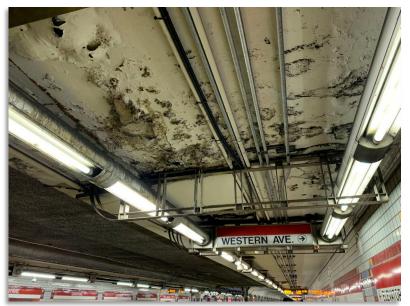


View of right side of restroom

Water Leaks



- Water ponding mitigation
- Trench drain maintenance



Heavy water damage with bubbling and peeling paint apparent water infiltration issue at ceiling



Water damage in ceiling



Water ponding on floor

Water damage and stalagmite in ceiling

Platform Lighting Retrofit

- Retain existing housings •
- Replace fluorescent lamps with new LED modules •

Metro Platform Light clear-vu lighting A Lighting Fixture Designed to Optimize LED Technology for Subway Platforms There are three components to the METRO Platform Light: LED Module, Fixture Frame and Raceway. LED MODULES The IP66-rated LED Modules are comprised of best-in-class LED components - .125" die-cast aluminum housing, .250" impact-grade polycarbonate lens/ diffuser (anti-static coated), and IP67 rated power supply and water-tight cable gland wiring. The result is an LED Module designed to provide high levels of uniform, glare-free lighting that is impervious to environmental/physical abuse and will provide many years of the highest quality platform lighting with very low operational and maintenance costs FIXTURE FRAME The Fixture Frame is comprised of a .125" heavy duty aluminum extrusion with .125" one-piece machined aluminum end caps. Standard frames are 4 foot (2 LED Modules) and 6 foot (3 LED Modules). Each LED Module is closed-cell gasketed to the Fixture Frame, held in place by top brackets and secured with hand-adjustable knobs facilitating tool-less removal for service. RACEWAY The Fixture Frame is hinged to the Raceway (integral, continuous hinge), sealed against moisture and dust with closed-cell gasketing and secured with tamper-proof stainless steel quarter-turn fasteners. The Metro Platform Light is designed to resist vandalism and facilitate authorized entry and LED Module removal for maintenance. AVAILABLE WITH: 12-watt LED Module for 10 FTC level 20-watt LED Module for 20 FTC level EMERGENCY LIGHTING OPTIONS INCLUDE: Integral 90-minute Battery Back-up Remote 240-minute Battery Back-up Combination Emergency System (95-295VAC, 600VDC, Battery)







IP66 rated die-cast aluminum LED module is ironmental abuse mpervious to physical/e and provides high levels of uniform. glare-free lighting.

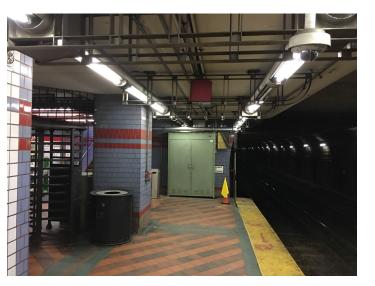
resists vandalism and facilitates authorized entry for tool-less LED module replacement

Fixture Frame, Raceway) is designed for new construction or can be customized to integrate into existing Raceway.

The three component luminaire (LED Module,

The heavy duty aluminum Fixture Frame

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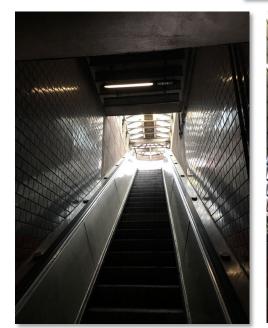
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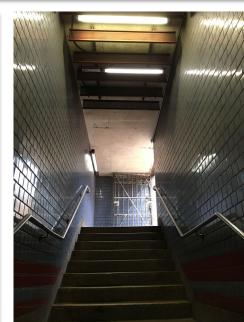
Stair Lighting

- New wall mounted fixtures to provide additional locations to meet MBTA light level requirements
- Other locations one-for-one replacement with new LED fixtures



Lumens per foot Wattage per foot	500K 80 CRI 50 CRI	Meta Blanc 13 596	DATE (DOWM/TYTY) Metalice	Op/OIS M3 M Light Level tarmen Warge Dicey Lonent Warge Dicey Lonent Warge Dicey 13 145 3.5 98 384 3.5 110 12 145 3.6 98 244 3.6 100	umen Adjustment Factor Celor Terep 80 CRI 90 CRI 93936 1,000 0,875 39956 1,000 0,875
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Wayfinding

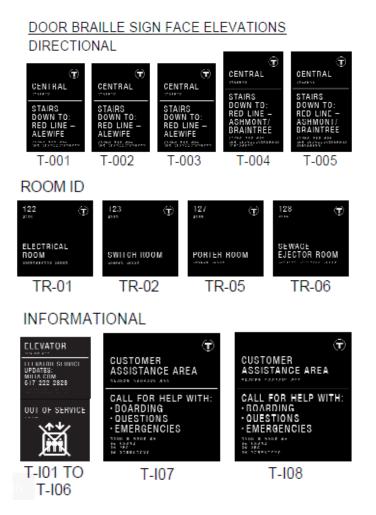
- Upgrading and replacing existing signs along the platform and surface level to current MBTA Wayfinding Standards
- Site Line Studies of variable message signs on new train cars



Surface Level Signs

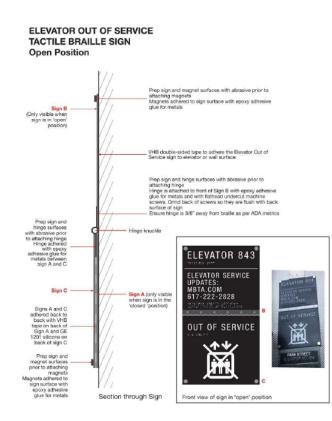


Braille Signs

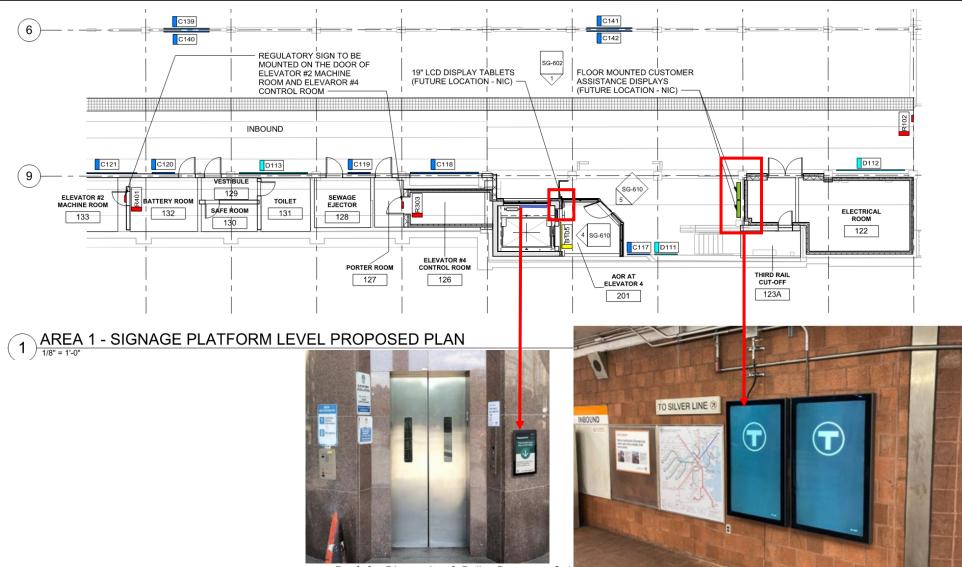




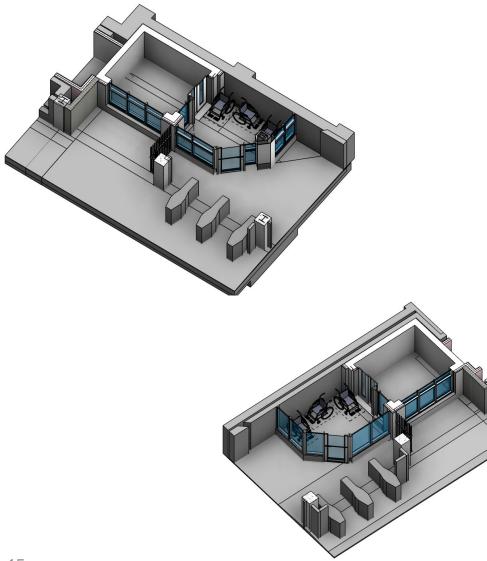
1) ELEVATOR OUT OF SERVICE SIGN



Display Screens



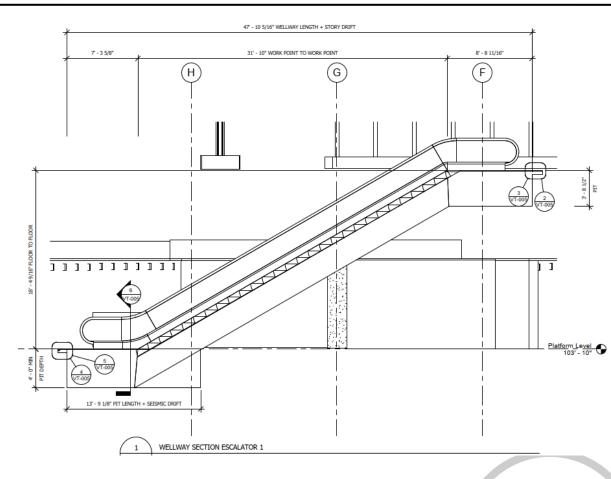
Areas of Refuge: Elevators 3 and 4



- Accessible spaces on each platform where riders can wait safely for emergency rescue and evacuation in the event that elevators are not operable in an emergency
- HVAC: smoke proof enclosure, fire rated & ventilated
- Electrical/Fire Alarm: lighting & two-way communication
- Swing Door with hold open & closer automatically released by the fire alarm

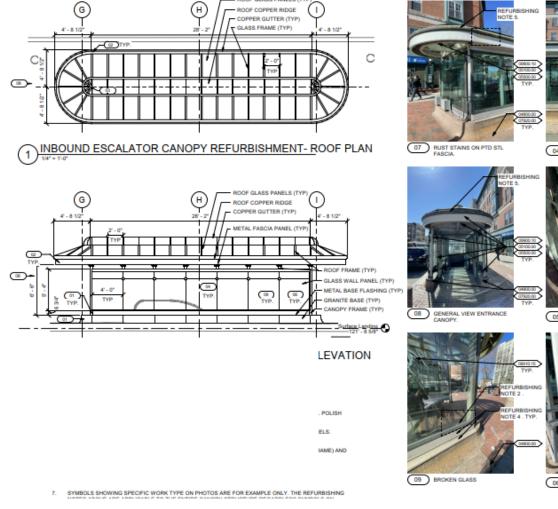
Escalator Modernization

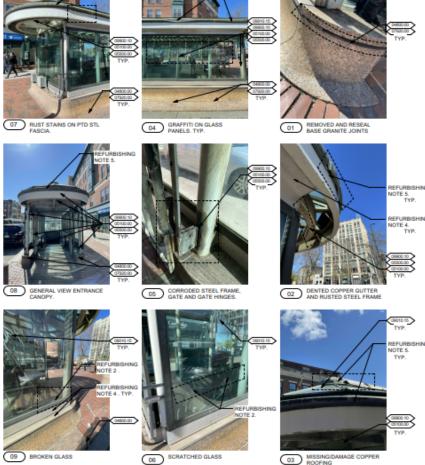
- Inbound platform escalator to be modernized and all components to be replaced or inspected/reinforced as necessary
- Escalator to meet requirements of the MBTA design guidelines to the maximum feasible extent and/or ability
- Will mirror the newly replaced escalator in the Outbound platform



Inbound Escalator Canopy Refurbishment

- Roof glass will be removed, cleaned, and polished
- Chipped or broken glass will be replaced
- Rust will be cleaned from steel and entire canopy will be repainted
- Damaged gutter will be repaired
- Granite base joints will be raked and resealed





Anticipated Construction Impacts

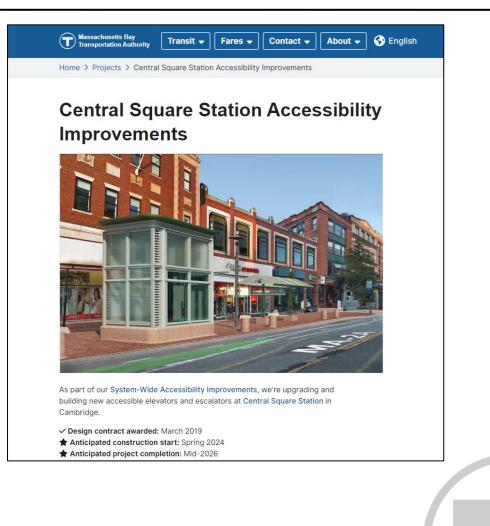
- Work at platform level to be performed during the day behind safety fences
- Deliveries and removal of debris during overnight hours
- Minimal anticipated impacts to the Red Line
- Construction team will plan to:
 - Reduce and mitigate noise and traffic impacts
 - Possibly relocate bus stop
 - Provide pedestrian detours as needed
 - Maintain loading access to local businesses



Central Square Station

Planned Outreach Efforts

- Pre-construction virtual public meeting once contractor is selected
- Briefings for relevant organizations including Central Sq. Business Improvement District
- Regular email updates to the project distribution list
- Updates to the project website based on anticipated work and impacts
- Responding to inquiries/concerns via the project inbox, <u>CentralSquare@MBTA.com</u>
- Coordination with MBTA operations to notify riders of service impacts



Next Steps

- Construction Notice to Proceed: Spring 2024
- Projected Project Completion: mid-2026

Please join our mailing list! You can sign up on the project website.

Project website: <u>www.mbta.com/CentralSquare</u>

Project email: <u>CentralSquare@MBTA.com</u>





Appendix

Escalator Modernization

- A complete new replacement of the Inbound escalator would require the street level canopy structure along with all MBTA station equipment located underneath the existing escalator to be removed, including all electrical and fire command equipment currently housed within this space.
- In order to alleviate the need to remove and reinstall all aforementioned equipment, a "truss-retention" modernization has been designed to replace the escalator in its entirety, while leaving the existing truss in place.
- For the sake of continuity, the modernized escalator will be the same product as that installed on the Outbound platform in 2020.
- Like the Outbound escalator, certain pre-existing site conditions prohibit 100% adherence to the MBTA escalator design guidelines. The escalator will meet the MBTA design guidelines to the maximum ability as is allowable and feasible based on site and truss conditions.