



**Massachusetts Bay  
Transportation Authority**

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## DGM Remarks

Fiscal & Management Control Board

November 6, 2017



**Massachusetts Bay  
Transportation Authority**

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## **Operations Winter Preparedness**



## Overview

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- ❖ Infrastructure
- ❖ Storm Coordination/Management
- ❖ Communications
- ❖ Winter Preparedness Status

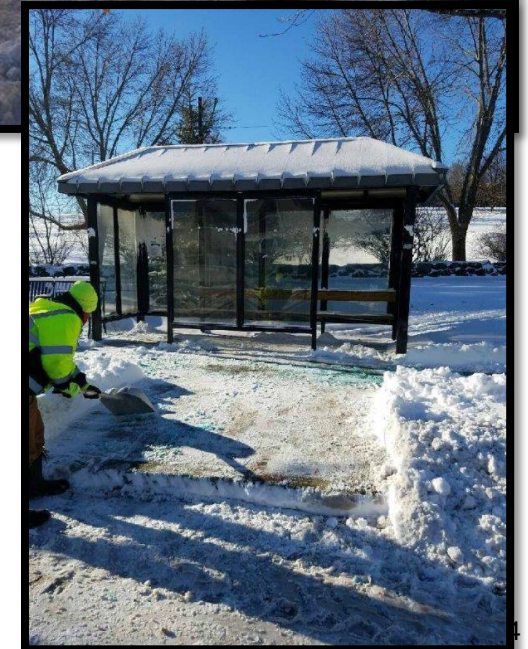
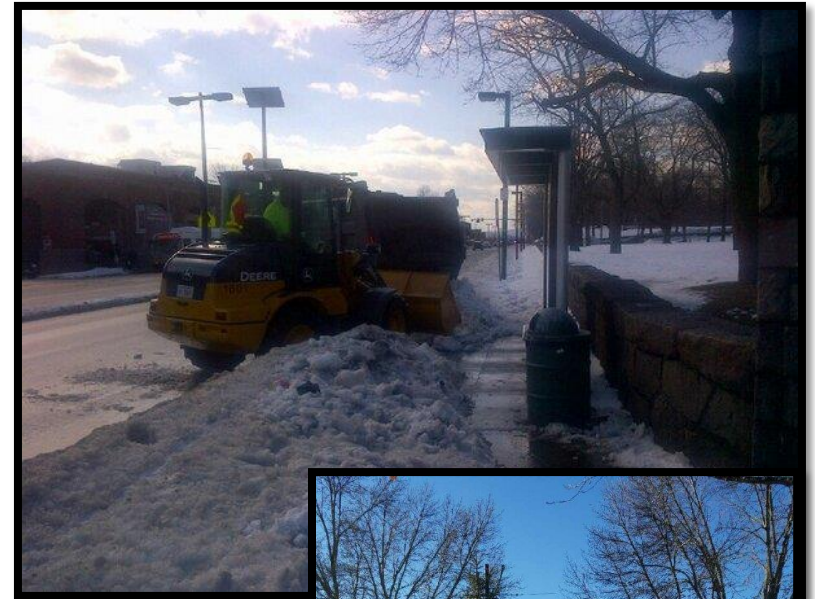




# Infrastructure

## Infrastructure

- ✓ Completed Phase 2 of Winter Resiliency work on Red Line Braintree/Ashmont branches
- ❖ Continued tree removal and trimming project
- ❖ Increase in Emergency, deployable Power Generation for facilities, Traction and Sub-Station power
- ❖ Continued Procurement of snow clearing and snow removal contracts
- ❖ Bus Stop Clearing Contract
  - Moving from hourly rate to a fixed fee and incremental payment structure (benchmarked against actual weather conditions)
  - Allows the MBTA to share the cost associated with triggering action based on a forecast
  - Allows the MBTA to incentivize innovation in snow clearing
  - Positively manage contractor performance
  - MBTA personnel will track and randomly inspect contractor performance





# Storm Coordination

## Inter-agency Coordination

- ✓ On October 11<sup>th</sup> conducted coordination Meeting with MassDOT, Highway District 6, MBTA, DCR, City of Boston to better respond and communicate during winter storms.
- ✓ Development of bus stop guidance and conducted a meeting on October 31<sup>st</sup> focused on community outreach related to accessibility across the network.
- ❖ Letter from GM to local municipalities requesting their assistance with clearing snow from bus stops
- ❖ Continue to build upon successes of involving the ESF1 transportation desk at MEMA bunker and other state agencies.





# Storm Management

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## **Management**

- ✓ Revised storm decision tool for storm classification levels to ensure right-size response
- ✓ Integration of MBTA winter plan with Keolis winter plan draft completed.
- ✓ Expansion of winter resiliency and storm desk lessons learned to special events and other types of severe weather.
- ❖ Re-defined the role of field coordinators and expectations of information from snow removal. Updated training program for coordinators.





# Communications

## Proposed Service Level Visuals

The following visuals will be used this winter on commuter rail for “today and tomorrow” service communications, as well as in T-alerts and on Twitter for all modes as needed during a weather event.

Winter commuter rail schedules will include ‘reduced service’ and ‘extremely reduced service’ schedules. These schedules will be identified with an ‘R’ or an ‘E’ along with their explanations in printed schedules and online.

## 2016/2017 Commuter Rail Levels



Moderate schedule changes

Major changes to schedules

No passenger service on the commuter rail

New: for use on all modes as needed including Commuter Rail.



**REGULAR SCHEDULE**



**REDUCED SCHEDULE**

Commuter rail reduced service schedule in effect.



**EXTREMELY REDUCED SCHEDULE**

Commuter rail extremely reduced service schedule in effect.



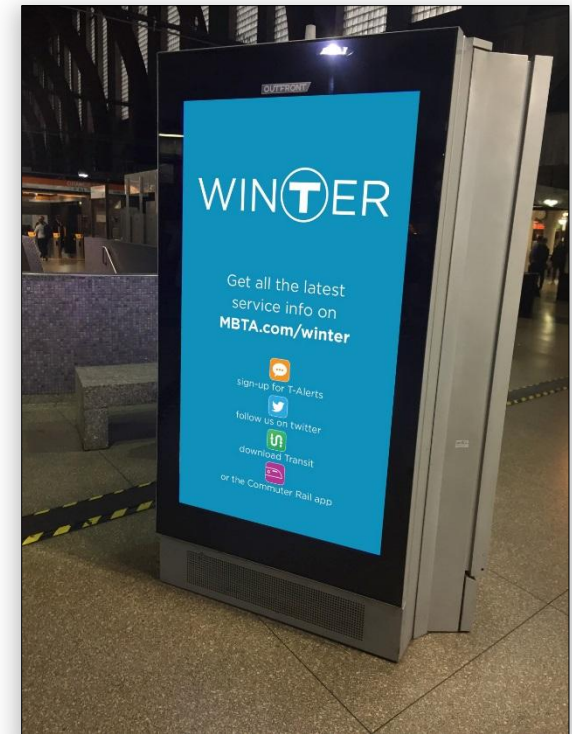
**NO SERVICE**



# Communications

## Winter Awareness Campaign

The winter awareness campaign kicked-off on November 1, 2017. It will run on all available MBTA modes of communication as well as on MassDOT highway billboards.







# Infrastructure

	November Goal	Actual	100% Goal Date
Snow Fencing	100%	70%	Nov 2017
Switch Covers	100%	85%	Nov 2017
Third rail, Switch and Trip Heater audits	75%	75%	Dec 2017
Winter Supplies (shovels, salt and sand)	50%	50%	Dec 2017
Installing Clearing Stakes (fire hydrants and other critical locations)	50%	50%	Dec 2017
Snow Clearing and Plowing Contracts	100%	100%	Nov 2017
Bus Stop/Station Snow Clearing Contracts	50%	100%	Nov 2017
Emergency Power Generation – Facilities	100%	100%	Sept 2017
Emergency Power Generation – Traction Power	65%	65%	Nov 2017
Emergency Power Generation – Sub-Station	30%	30%	Jan 2018
Dewatering Pumps	100%	95%	Nov 2017



# Rail Vehicles

Revenue	November Goal	Actual	100% Goal Date
Spare Traction Motors	100%	100%	Nov 2017
Car Equipment Preparations & Inspections	70%	70%	Nov 2017
Installation of Snow Plows	70%	55%	Nov 2017
Anti-Icing Equipment Preparation	75%	75%	Nov 2017
Type 7 Thyristors	100%	100%	Nov 2017





# Non-Revenue Vehicles

Non-Revenue	November Goal	Actual	100% Goal Date
Winter Equipment Preparedness (Plow Trucks, Rail Borne Equipment, and Snow Blowers)	80%	80%	Nov 2017
Conversion of Swingmaster with Jet Blowers	5%	5%	Dec 2017
Conversion of Ballast Regulators to Auger Snow Blowers	5%	5%	Dec 2017
Track Loaders with Rail Gear and Auger Snow Blowers	90%	100%	Dec 2017
ASV Track Loaders with Plows	90%	90%	Dec 2017





# Bus Vehicles

Bus	November Goal	Actual	100% Goal Date
Plow Truck in each Repair Facility	100%	100%	Oct 2017
Southampton Lot Paved	100%	100%	Oct 2017
Winterization of all Revenue Vehicles	70%	70%	Nov 2017
Proactive Materials Planning for Winter Parts	100%	100%	Nov 2017





# Management

Planning	November Goal	Actual	100% Goal Date
Revise Snow and Ice Operations Plan <ul style="list-style-type: none"> <li>Revised Storm Classification Tool</li> <li>Commuter Rail Snow Plan Integration</li> <li>Customer Call Center updates</li> <li>EOC and Storm Desk Activations</li> <li>Roster and POC Updates</li> </ul>	100%	90%	Nov 2017
ESF1 Training	100%	100%	Nov 2017

Training and Exercise	November Goal	Actual	100% Goal Date
Equipment Deployment Drill (December 1, 2017)	85%	85%	Dec 2017
Storm Desk and Field Coordinator	80%	75%	Dec 2017





# Commuter Rail

Infrastructure	November Goal	Actual	100% Goal Date
Station Supplies (Salt Boxes)	0% <sup>1</sup>	40%	Nov-17
Electric Switch Heater Inspections	80%	80%	Nov-17
Switch Heater Thermal Sensor Adjustments	50%	50%	Nov-17
Switch Cover Installations	100%	100%	Nov-17
Propane Switch Heater Installations	90%	90%	Dec-17
Brush Clearing (Fall & Winter Prep)	30% <sup>2</sup>	40%	Nov-17

<sup>1</sup>Begins in November

<sup>2</sup>As part of PTC project and Slippery Rail PI





# Commuter Rail

Vehicle	November Goal	Actual	100% Goal Date
Work/Snow Equipment Preparations	50%	50%	Nov-17
Revenue Rolling Stock Winterization (e.g. Trap Heaters, Pocket Heaters, Overhead, Floor, Layover Circulator)	50%	50%	Nov-17
MPI Guru & Dayton-Phoenix Drain Valves	80%	80%	Dec-17
MPI Battery Charger Replacement	100%	100%	Dec-17
Critical Parts Inventory – Legacy Locos and All Control Coaches	-	In Stock	-
Critical Parts Inventory – MPI Locomotives	-	On Order <sup>1</sup>	-
Layover Winter Assessment & Training	50% <sup>2</sup>	50%	Nov-17

<sup>1</sup>Long lead on certain orders, GE/MPI has small inventory based on limited history of known failures. No documented “at risk” set of components for winter.

<sup>2</sup>Training completed first week of October – 2 week field program. Assessment in progress.



## Appendix

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## Diversions

### Service Disruptions: Weekend of November 4th-5th, 2017

#### RED LINE

- What & Where: Shuttles replace trains between Park Street & Kendall/MIT
- Who: Buses operated by private carriers - Yankee and subcontractors
- When: Saturday-Sunday all day, and following weekends through 12/17
- Why: Tracks being reconstructed as part of Longfellow Bridge work

#### ORANGE LINE

- What & Where: Shuttles replace trains between Forest Hills & Ruggles
- Who: Buses operated by MBTA
- When: Saturday-Sunday all day, and following weekends through 11/19
- Why: Track work to remove speed restrictions and other issues

#### HAVERHILL

- What & Where: Shuttles replace trains between Haverhill & Oak Grove
- Who: Buses operated by private carrier - Yankee
- When: Saturday-Sunday all day, and following weekends through 12/3
- Why: Positive Train Control (PTC) installation

Modified Rapid Transit map showing disruptions





## Diversions- Red Line Park Street to Kendall

### Red Line shuttle Park Street - Kendall

**Notable changes from last weekend:**

- Additional directional signage from both Red & Green platforms at Park St. up to shuttles
- Have emphasized importance of clear, audible announcements to contracted bus operators

### Sign & Staff overview



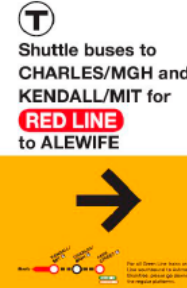


Station	A-frames on street level				Posters on platform		Staffing					
	Board Here	Direction to Park St shuttles	Direction to Kendall shuttles	Use inbound platform for Alewife	Advisory about disruption	Directions to street level for shuttles	Yankee Staff	Yankee ADA Expert	Rail Ops Staff	Bus Ops Staff	Sr. Staff	TPD
Park St	1		7		~10	25 (incl. GL)	8	1	7	2	1	4
Charles	2	3	2		~10	N/A	8	1	3	2	1	4
Kendall	1	5		5	~10	5	8	1	6	2	1	4



## Diversions- Red Line Park Street to Kendall

### Red Line shuttle Park Street - Kendall

### A-frame placement details

 <p><b>Board shuttle buses here</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Shuttle buses to CHARLES/MGH and PARK STREET for RED LINE to ASHMONT/BRAINTREE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Use inbound platform for trains to ALEWIFE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Shuttle buses to CHARLES/MGH and KENDALL/MIT for RED LINE to ALEWIFE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>
<p><b>Sign A</b> Kendall (1) Park (1)</p>	<p><b>Sign B</b> Kendall (5) ← on reverse</p>	<p><b>Sign C</b> Kendall (5) ← on reverse</p>	<p><b>Sign D</b> Park (7) ← on reverse</p>
 <p><b>Board shuttle buses here to PARK STREET for RED LINE to ASHMONT/BRAINTREE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Board shuttle buses here to KENDALL/MIT for RED LINE to ALEWIFE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Shuttle buses to PARK STREET for RED LINE to ASHMONT/BRAINTREE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>	 <p><b>Shuttle buses to KENDALL/MIT for RED LINE to ALEWIFE</b></p> <p>Call METRA, www.Louisville.gov or 502-637-0200 or 771-617-020-0146</p> <p>Transportation by <b>massDOT</b></p>
<p><b>Sign E</b> Charles (1) ← on reverse</p>	<p><b>Sign F</b> Charles (1) ← on reverse</p>	<p><b>Sign G</b> Charles (3) ← on reverse</p>	<p><b>Sign H</b> Charles (2) ← on reverse</p>

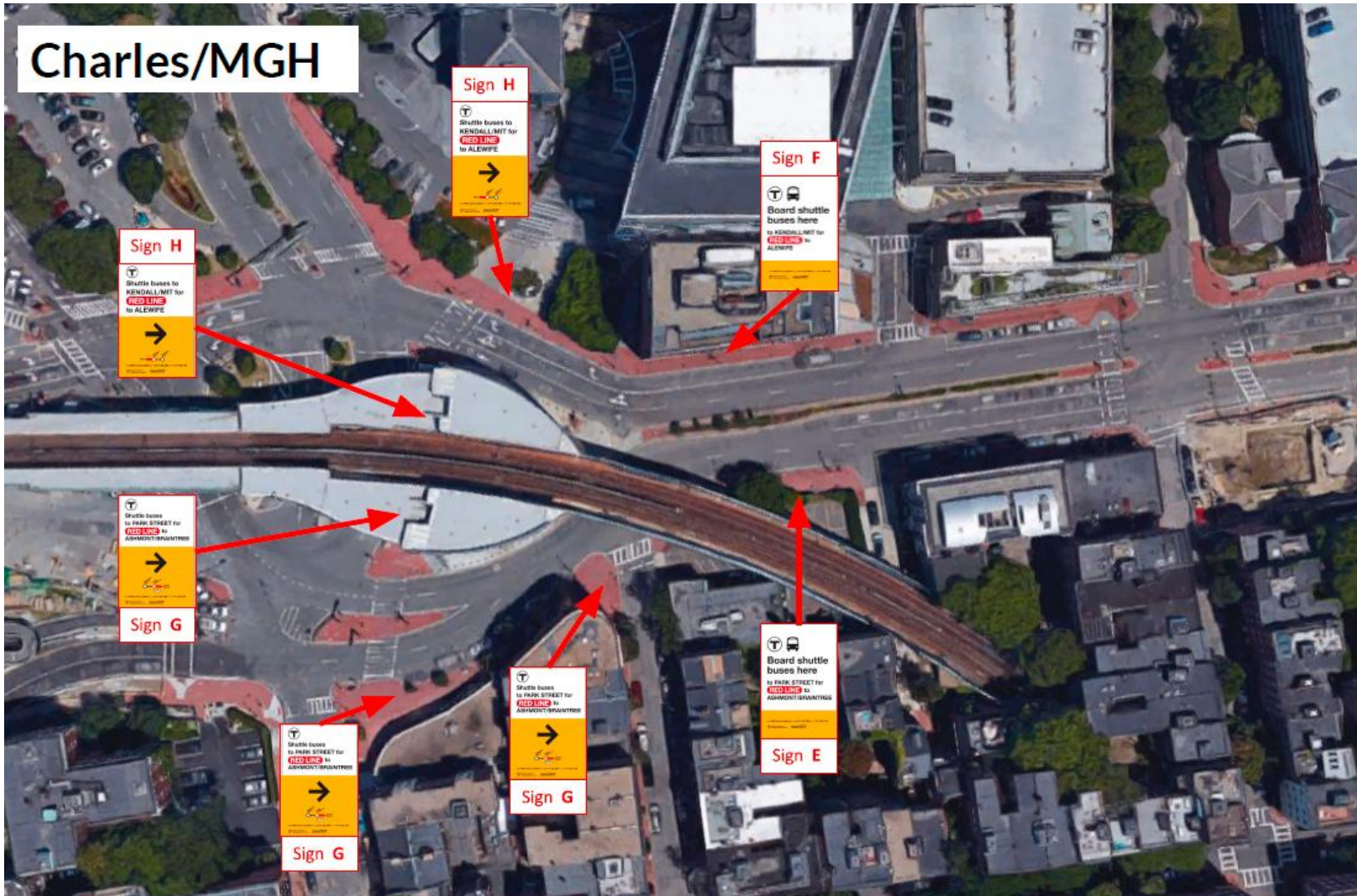


## Diversion- Red Line Park Street to Kendall





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