

Massachusetts Bay Transportation Authority

Report from the Deputy General Manager

Fiscal and Management Control Board

October 5, 2020

Overview

- Achieving new headways and capacity increases will be delayed at least a year for both the Red and Orange Line
 - Orange Line: Summer 2023
 - Red Line: Winter 2024
- Manufacturing and production output from new Springfield facility primary cause of delays.
- MBTA, at all levels of organization, actively engaging and assisting CRRC to identify and mitigate production issues.



Current Status: Delivery

Orange Line:

- 24 cars have been delivered to Wellington car house
- Next two cars expected to be delivered this month
- 3 new train sets have been accepted for passenger service - 14 train sets in the peak

Red Line:

- 6 pilot cars are continuing to undergo testing
- First train set expected to enter revenue service this by end of the year



Red Line Pilot Car Testing



Current Status: Schedule

CRRC's current project schedule:

- Completion of Orange Line car delivery (152 cars) **fifteen months late**
 - Contractual Delivery Requirement: January 2022
 - Current CRRC Schedule: April 2023
- Completion of Red Line car delivery (252 cars) **one year late**
 - Contractual Delivery Requirement: September 2023
 - Current CRRC Schedule: September 2024



Current Status: What Does This Mean?

Vehicles are critical path to achieving new headways and capacity increases on the Red and Orange line

- Based on CRRC's most recent schedule, we anticipate to be running today's level of service with all new cars:
 - Orange Line: Spring 2022
 - Red Line: Winter 2023
- New headways anticipated to be achieved once all new cars have been accepted for service:
 - Orange Line: Summer 2023
 - Red Line: Winter 2024



Current Status: How Did We Get Here?

Springfield facility is responsible for “Final Assembly” of cars (installation of interior, wiring, wheels, motors, controls, etc.)

- Majority of project delays caused by production issues at CRRC’s new Springfield facility
- Issues Included:
 - Materials availability
 - Manufacturing workflow
 - Production instructions
 - Employee levels, training, and retention
 - Covid-19 impacts (recent delays)
- Attempting to stabilize production in Springfield; progress has been made



Orange Line Production in Springfield



Current Status: MBTA Response

The Authority is actively managing and monitoring CRRC to assist with production output improvements.

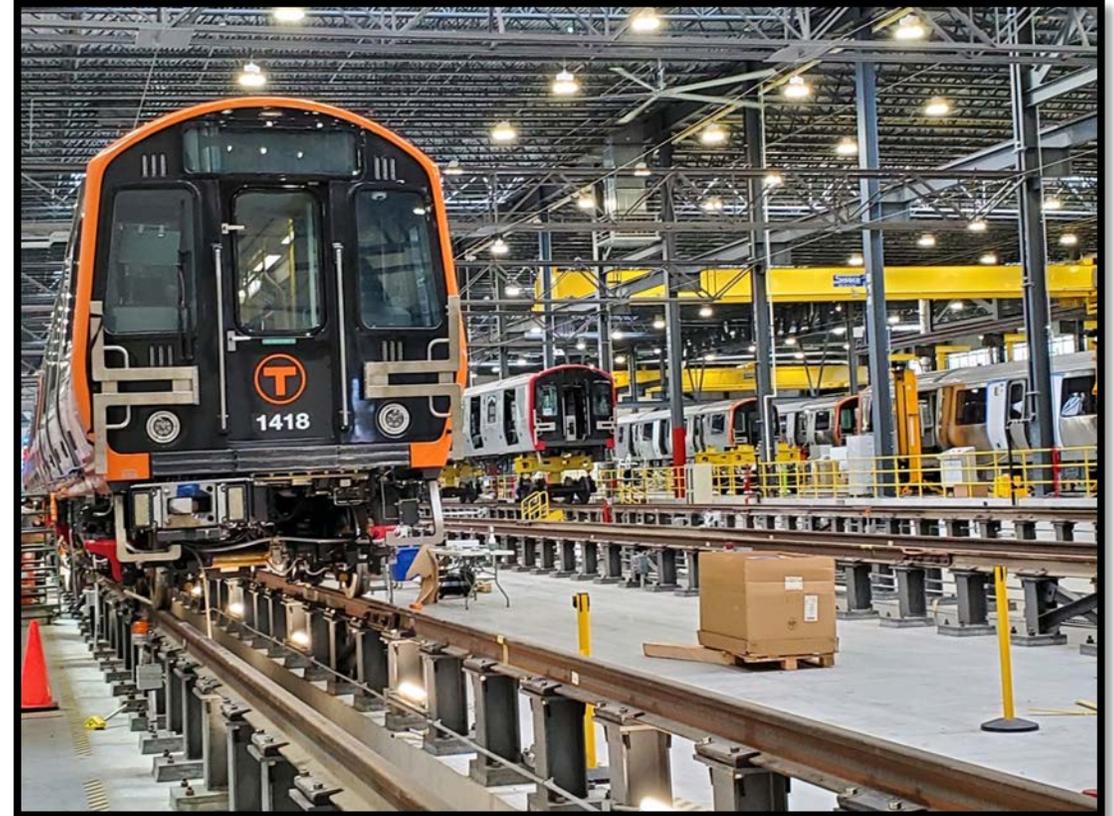
- Providing senior and assembly level production efficiency counsel
- MBTA representatives and staff embedded in Springfield
- Increased cadence of meetings and oversight to proactively identify and mitigate “bottlenecks”
 - Daily project senior level meetings with CRRC project and production teams
 - Weekly meeting with head of CRRC China/US production
- GM leads a weekly internal multi-departmental steering committee reviewing project status.

The Authority’s contract with CRRC has \$500/day per car delivery delay damages. Assessment to be evaluated at contract completion.



Next Steps

- CRRC is making progress toward improvements with production stabilization and output at Springfield final assembly site.
- Vehicle Engineering team continues to actively monitor, provide guidance, and collaboratively work to address production issues.
- Senior leadership are scheduling a meeting w/ Chairperson of CRRC Board to discuss project concerns and schedule delay mitigations.
- Update to overall Red and Orange Transformation Program will be provided during today's meeting



Orange and Red Vehicles in Production

