

# GLTPS



# GREEN LINE TRAIN PROTECTION SYSTEM

A CAPITAL TRANSFORMATION PROJECT

## Monthly Review and Lookahead

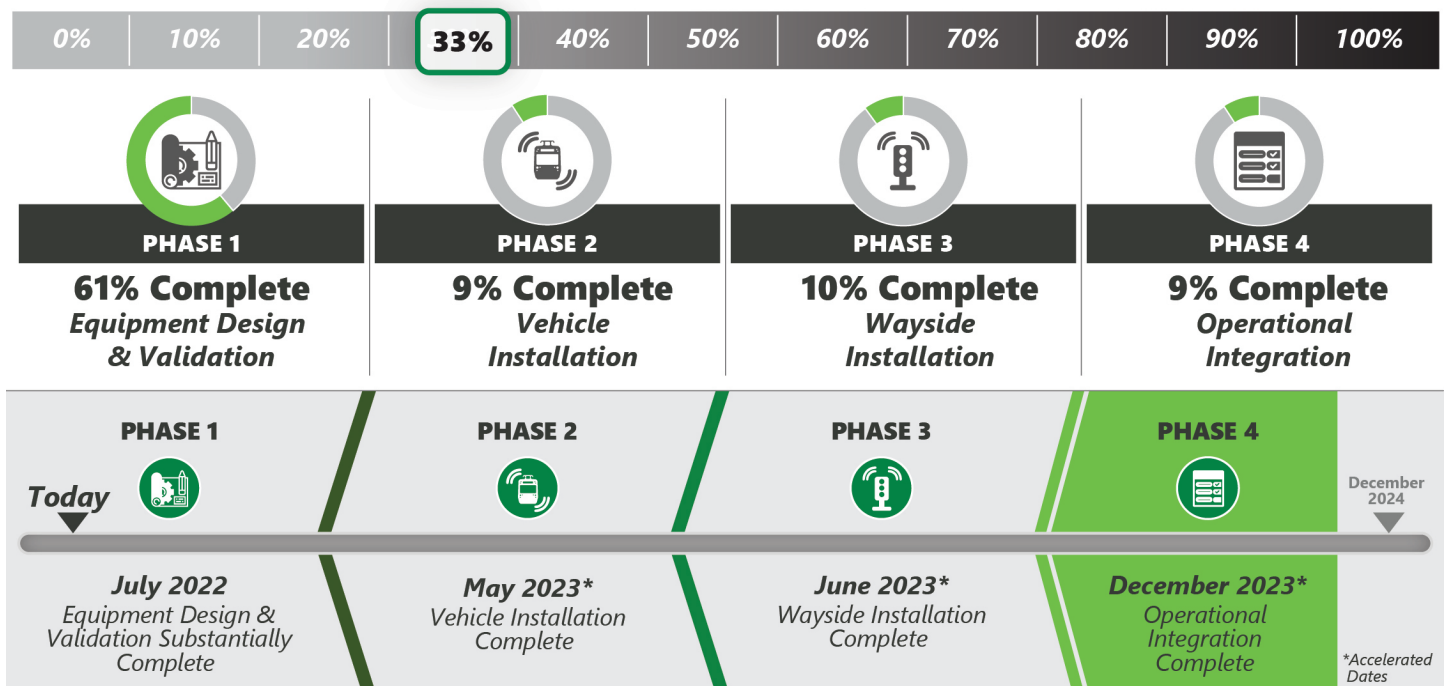
Wednesday, May 25, 2022

**Overview:** The Green Line Train Protection System (GLTPS) combines vehicle and wayside equipment, that work together to avoid train on train collisions, add red light signal protection, and incorporate speed enforcement. The project has four (4) overlapping phases starting with **Equipment Design**, which integrates new components into the legacy system. The **Vehicle Installation** contract has been formally awarded and the Contractor is mobilizing at the GLX facility in Somerville. The **Wayside Installation** contract is in the procurement phase and will be finalized in May. The **Operational Integration** phase is preparing the MBTA to use the new safety system on its Green Line. Currently, our primary focus is working toward the baseline design finalization for Wayside and Type 7 vehicles.

### Did you know...

... the vehicle and wayside mounted radio upgrade equipment are in constant communication until a vehicle passes the next signal in sequence. This either enforces speed restriction or allows the vehicle to maintain a given speed dependent upon the wayside signal status. If that signal status changes while approaching a signal, the vehicle will react accordingly per the new condition and apply braking if the speed of the vehicle is above that of the enforced speed.

### GLTPS by the Numbers



## This Past Month



### Equipment Design & Validation

- **A fleet engineering survey was completed on car #3844** to further the already in progress conceptual designs of the Type 8 vehicles. Prototype enclosures and harnesses will be manufactured in May and fitment will take place in June to validate the conceptual designs.
- **A preliminary report of the collision avoidance software testing** was presented for review to the Project Team. A Type 7 vehicle was tested in multiple scenarios on the Green Line in March and April to further optimize the software parameters before approval for fleet implementation.



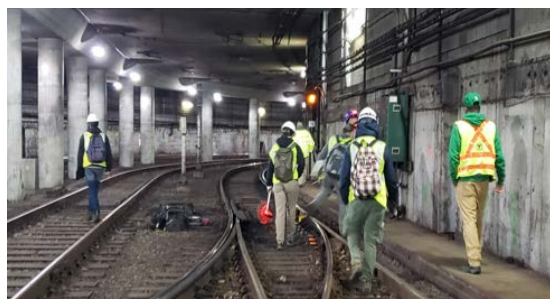
### Vehicle Installation

- **The Vehicle Installation Contractor has completed mobilization** at the Green Line Extension (GLX) vehicle maintenance facility in Somerville. Temporary modular offices and parts containers have been installed and will be removed after the entire Green Line fleet has been modified.
- **Disassembly of car #3708 was completed and installation** of the GLTPS equipment began. Eight interior enclosures along with exterior and undercar equipment and associated wire harnesses will be installed as part of the entire modification on the Type 7 fleet.



### Wayside Installation

- **The Wayside Installation Contractor is completing the necessary steps** before formal award. The Contractor will then mobilize and prepare for the installation of speed balises on the B-Branch beginning June 20. Further installations in calendar year 2022 will occur on the C, E, and D-Branches between July and October.
- **The Project Team and System Integrator completed wayside surveys** in May in anticipation of the upcoming installation efforts. These surveys are an integral part of identifying the sequence of installation which will allow the Contractor to meet the accelerated schedule.



## Lookahead for June



### Equipment Design & Validation

- Complete First Article Inspections (FAIs) for Type 7 vehicle & wayside assemblies
- Complete the Type 8 prototype enclosure and harness manufacturing



### Vehicle Installation

- Complete first installation inspection (FII) on 3708 and begin preliminary dynamic testing
- Begin Type 8 prototype fitment of enclosures to further design progress



### Wayside Installation

- Mobilize wayside installation contractor and prepare laydown area for incoming materials
- Complete B-Branch installation of required speed balises during June Surge



### Operational Integration

- Provide Stakeholders with newly revised operational storyboard and video
- Complete Stakeholder training by first affected entities per Operational Readiness integration