



# Green Line Extension Project

EarthFest 2012



Lechmere Station



Lechmere Station



## Introduction

The Massachusetts Department of Transportation (MassDOT) is partnering with the Massachusetts Bay Transportation Authority (MBTA) to extend the Green Line to improve transit service, mobility, and regional access for residents and visitors in Cambridge, Somerville and Medford. Bringing MBTA light rail service to these densely populated cities will address longstanding transportation inequities, result in fewer automobiles on local roads, and help to combat greenhouse gas emissions and other components of air pollution. The Green Line Extension will also support municipal plans for local economic growth and provide residents of environmental justice communities with faster rides to jobs, schools, health care, and other destinations.

The Green Line Extension will extend the existing MBTA Green Line by utilizing two distinct branches within the existing ROW:

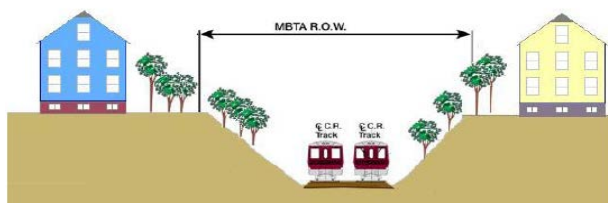
- 1) A "mainline" branch which will operate along the MBTA Lowell Line, beginning at a relocated Lechmere Station in Cambridge and traveling to Medford;
- 2) A branch line operating within the existing right-of-way for the MBTA Fitchburg Line to Union Square in Somerville.

Once completed, trains will operate every five to six minutes in the peak periods, providing fast and efficient service to downtown Boston. Ridership is expected to be 49,000 a year by year 2030.

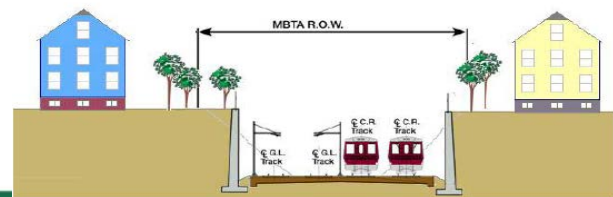
## Project At-A-Glance

- **Track Design:** The project will require the relocation of the existing commuter rail tracks to the northeast side of rail corridor and the construction of new light rail tracks in the now available space.
  - Relocated Lowell and Fitchburg Commuter Rail Tracks
  - Green Line Medford Branch: 3.4 miles
  - Green Line Union Square Branch: 0.9 miles
- **Seven Stations:**
  - Lechmere
  - Washington Street
  - Gilman Square
  - Lowell Street
  - Ball Square
  - College Avenue
  - Union Square
- **Reconstruction of 8 Bridge Structures**
- **Maintenance and Storage Facility**
- **Signal, Communication, and Power Systems**
- **Design of Community Path (between Lowell Street and Inner Belt Road)**
- **Multimodal Connections**
- **Retaining and Noise Walls**
- **24 New Green Line Vehicles**

Existing Section Looking North



Proposed Section Looking North

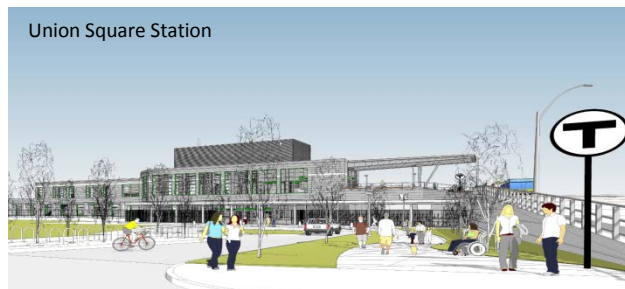
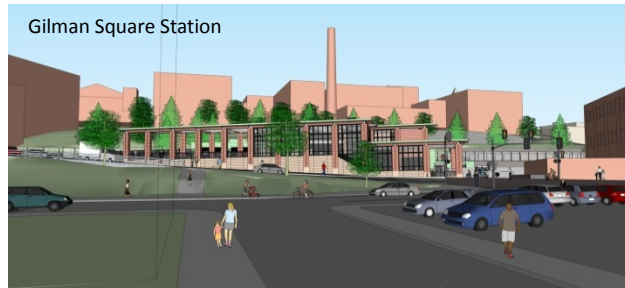


## SUSTAINABILITY

The Green Line Extension Project will bring much needed light rail service to the municipalities immediately northwest of Downtown Boston, a dense area once heavily serviced by trolleys and now reliant upon bus lines that are unable to adequately meet the demand for efficient public transit into the core of Boston. The Extension Project, which is projected to reduce vehicle miles traveled by 25,018 per day and generate 7,500 new daily MBTA riders, will serve and support compact, walkable communities which already have a high rate of pedestrian and bicycle transportation. Correspondingly, the project will result in a reduction of greenhouse gases of nearly 18,000 kilograms per day, as well as reductions in other air pollutants. The project will help to promote livability and sustainability and closely mirrors the stated goals for new public transit investments.

The project also has many opportunities to implement

sustainable design concepts that are currently being developed during early design. The project team is examining areas such as energy efficient systems, reduction in water consumption and other components that will reduce resources consumption. Specifically the project team is examining the feasibility of a green roof on the maintenance facility, incorporating renewable energy systems into station design, utilizing high efficiency lighting and energy controls on systems such as HVAC escalators, elevators, etc. The maintenance facility will have a focus on water reclamation and water recycling. The design will also highlight those areas where Best Management Practices in regard to storm water management, natural resource protection, dust and noise control, worker protection for the removal of lead, asbestos or other hazardous materials that the contractor may encounter. When selecting materials, attention will be paid to low emitting materials such as paint and sealants, as well as utilizing local and/or recycled content when possible.



Station perspectives as presented in the Spring 2012 Station Public meetings. Full presentations and more information on the Green Line Extension project, is available on the GLX website: [www.mass.gov/greenlineextension](http://www.mass.gov/greenlineextension)