Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

August 3, 2017

Mr. Martin Suuberg
Commissioner
Department of Environmental Protection
1 Winter Street
Boston, MA 02108

Dear Commissioner Suuberg:

The Massachusetts Department of Transportation (MassDOT), in conjunction with the Massachusetts Bay Transportation Authority (MBTA), is submitting the attached report to the Department of Environmental Protection (DEP) in order to fulfill the requirements of 310 CMR 7.36, Transit System Improvements. This annual report provides a project description and status information for each of the outstanding public transit projects required under the amended State Implementation Plan (SIP).

Please do not hesitate to contact me at (857) 368-8865 if you would like to discuss further.

Sincerely,

David J. Mohler
Executive Director
Office of Transportation Planning

cc: Christine Kirby, DEP

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Massachusetts Department of Transportation

Massachusetts Bay Transportation Authority

# State Implementation Plan – Transit Commitments

## 2017 Status Report

Submitted to the Massachusetts Department of Environmental Protection

August 3, 2017

**For questions on this document, please contact:**

Massachusetts Department of Transportation

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MassDOT Office of Transportation Planning
August 3, 2017

## INTRODUCTION

This report is submitted by the Massachusetts Department of Transportation (MassDOT), in conjunction with the Massachusetts Bay Transportation Authority (MBTA), to the Massachusetts Department of Environmental Protection (DEP) in order to fulfill the requirements of 310 CMR 7.36(7), *Transit System Improvements*. Below is a project description and status information for each of the outstanding public transit projects required under the amended State Implementation Plan (SIP).

As noted in previous Status Reports, MassDOT is no longer reporting on the Red Line/Blue Line Connector Design, Blue Line Platform Lengthening and Station Modernization, the Greenbush Commuter Rail Restoration and the Construction of 1,000 Parking Spaces. All of those projects have been completed and MassDOT believes that the relevant commitments have been met. On December 8, 2015, the Environmental Protection Agency published a final rule in the Federal Register approving a revision submitted by the Commonwealth of Massachusetts to remove from the SIP the commitment to design the Red Line/Blue Line Connector project.

As always, MassDOT hopes to make the annual Status Report process one of iterative improvement, and looks to DEP and to the public for comments and other suggestions to refine its efforts.

This report (along with past reports and supporting documents) will be posted to MassDOT's SIP Regulations website at:

https://www.massdot.state.ma.us/planning/Main/PlanningProcess/StateImplementationPlan/SIPTransitCommitmentSubmissions.aspx

## I. FAIRMOUNT LINE IMPROVEMENT PROJECT

### SIP Requirement

*Before December 31, 2011, construction of the following facilities shall be completed and opened to full public use: Fairmount Line improvements consisting of enhancements of existing stations including without limitation: platform extensions; improved lighting and improved access; a new station in the general location of Four Corners, and a new station in each of the neighborhoods of Dorchester, Mattapan and Roxbury; and bridge upgrades and other measures to improve service and increase ridership (the Fairmount Line project). EOT[1] shall meet the following interim deadlines for the Fairmount Line Project:*

*A. One year from the effective date of this regulation (December 1, 2006), develop a Request for Proposals for a design consultant, complete the competitive procurement process, and issue a notice to proceed for a design consultant.*

- ✓ Done

*B. Within two years following the issuance of a notice to proceed, complete final design, apply for all necessary permits and grants, file any required legislation, and initiate all public and private land acquisition.*

- ✓ Done (for all elements of the project except for Blue Hill Avenue Station)

### Project Description

The 9.2-mile Fairmount commuter rail line runs from South Station, previously served four stations (Uphams Corner, Morton Street, Fairmount, and Readville) in the communities of Dorchester, Mattapan, and Hyde Park, and terminates in the Readville section of Boston. The line, which uses right-of-way entirely owned by the MBTA, also includes 41 bridges. It is the only commuter rail line that exclusively serves neighborhoods within the City of Boston, but ridership has historically been low and passenger facilities along the line have not met modern standards.

The Fairmount Line Improvement Project is defined as the rehabilitation of the existing Uphams Corner and Morton Street Stations, construction of four new stations (Newmarket, Four Corners, Talbot Avenue, and Blue Hill Avenue), reconstruction of six existing railroad bridges (located over Columbia Road, Quincy Street, Massachusetts Avenue, Talbot Avenue, Woodrow Avenue, and the Neponset River), and construction of a new interlocking and upgraded signal system (required to advance the bridge reconstruction work). The intent of these upgrades has been to enhance future service, allowing for increased frequency on the line.

### Planning Conformity

Throughout the life of the project, improvements to the Fairmount Line have been included in all relevant transportation planning documents, including the Regional Transportation Plans of the Boston Region Metropolitan Planning Organization (MPO).

[1] EOT is the predecessor to the legislatively-created Massachusetts Department of Transportation (MassDOT). For the purposes of referencing 310 CMR 7.36(7) *Transit System Improvements* of the SIP, this report will continue to use the EOT designation. However, the MassDOT designation will be used for all other language or text contained in this report.

**Project Status**

The sections below describe the current status of the different elements of the Fairmount Line Improvement Project.

*Systems*

Necessary upgrades to the required interlocking and signal systems have been completed and are currently in use, which has allowed for the reconstruction of structurally deficient bridges along the Fairmount Line.

*Bridges*

A construction contract to replace the Columbia Road, Quincy Street, and Massachusetts Avenue bridges was awarded in October of 2007, and construction was completed in 2010. The construction of the Talbot Avenue and Woodrow Avenue bridges is complete (see "New Stations" below). Construction of three bridges over the Neponset River began in fall 2010, and was completed in summer 2013.

*Existing Stations*

As stated above, existing stations at Uphams Corner and Morton Street required only rehabilitation for the project. The MBTA held a station re-opening at Uphams Corner on January 23, 2007. The reconstruction of Morton Street was celebrated at a station re-opening on July 17, 2007. New elements at both stations include extended high-level passenger platforms, accessible walkways, canopies, benches, windscreens, signage, bicycle racks, variable messages signs, lighting, and landscaping. Work at both stations is complete.

*New Stations*

**Four Corners Station** opened for service July 1, 2013. The station had been under construction since January 2010. The construction of Four Corners Station experienced delays due to unforeseen geotechnical conditions, relocation of existing utilities, and a redesign of the inbound sloped walkway structure at Geneva Avenue. Substantial completion of Four Corners Station occurred in June 2013 and final construction was complete in September 2013. All outstanding change orders have been paid and the project is officially closed out.

The construction of **Talbot Avenue Station** and the **Talbot and Woodrow Avenue Bridges Rehabilitation** projects began in fall 2010. The construction lasted approximately twenty-six months, with substantial completion of the station and the bridges in October 2012 and final completion of work in January 2013. The structural replacement of the two bridges was completed over weekends in November and December 2011. Talbot Avenue Station opened in November 2012. There are several change orders that must be processed in order for this project to be closed out. The MBTA project office is negotiating with the Contractor to finalize payment.

**Newmarket Station** opened for service on July 1, 2013. The station had been under construction since October 2010. Delay in the completion of the station was attributed to the discovery of an existing power duct bank for the South Bay Shopping Center not previously identified on any existing utility plans. The

necessity to redesign elements of the inbound and outbound retaining walls and a delay in the manufacturing of the precast concrete platform panels further contributed to the delay.

The proposed **Blue Hill Avenue Station** has been the subject of significant community controversy over the past seven years. In early 2009, after design work for the station was well underway (at the 60% design level), a small number of abutters raised concerns about negative impacts to residences immediately surrounding the proposed station, which at the time was proposed to have two side platforms. In an effort to address these concerns, the MBTA conducted a new analysis of alternative station locations. This additional analysis determined that at least one alternative location (River Street) was infeasible due to track curvature, and that two other alternative locations (north of Blue Hill Avenue and south of Cummins Highway) would have greater impacts to abutting residential properties than would the original design and would also serve fewer riders at a greater cost. The MBTA developed one additional alternative that made use of a center-island platform at the original station site in order to address some abutter concerns by locating the platform further from homes and backyards. The MBTA then completed an additional analysis of noise and vibration impacts (and considered mitigation measures) to try to address any outstanding abutter concerns.

The MBTA and MassDOT made a final determination on the Blue Hill Avenue station in May 2011. Design of the center-island station concept is continuing, as is ongoing discussion with the opposing abutters about appropriate mitigation. While the community still has concerns, the project team is now advancing the design with the understanding that continued coordination with the community is paramount. On September 15, 2014 the MBTA General Manager led a community meeting in Mattapan. The MBTA has engaged the Community in working group meetings to incorporate community concerns in the design. The latest meeting was held on April 2015. The 90% design plans were received in July 2015 and 100% plans were submitted March 2016. A public meeting was held in September 2016 to announce the project advertisement and bid date. MBTA advertised the project on Decemebr 9, 2016 with an engineer's estimate of $19,326,378. The bid opened on January 17, 2017. There were seven (7) bidders and McCourt Construction was the low bidder ($16,973,094.00). Notice to Proceed (NTP) was issued on February 2, 2017. Construction is currently ongoing. Substantial completion is expected March 30, 2019.

**Project Funding**

In August 2007, MassDOT and the MBTA executed a contract to transfer approximately $39 million from the 'immediate needs' Transportation Bond Bill of 2007 (which provided Commonwealth bond funding to support the costs of the SIP projects) from MassDOT to the MBTA to support the costs of (1) signal work, (2) reconstructing the Columbia Road, Quincy Street, and Massachusetts Avenue Bridges, (3) designing the Talbot Avenue, Woodrow Avenue, and Neponset River Bridges, and (4) designing the Newmarket, Talbot, and Blue Hill Avenue Stations.

A supplemental funding agreement providing $23,756,574 in Commonwealth bond funding to the MBTA was executed in June 2009 in order to advance the construction of the station at Four Corners. A third funding agreement, approved in June 2011 in the amount of $61,616,500, has allowed the remaining stations (including Blue Hill Avenue) and bridges to advance. These contracts total approximately $124.4 million in authorized spending on the Fairmount Line Improvement Project to this point. In September

2015, the ISA was renewed after expiring for $26,500,000 for the remaining value to cover Blue Ave Station construction cost and remaining legacy costs.

**SIP Requirement Status**

*Community concerns (described above) regarding the construction of a station at Blue Hill Avenue, as well as construction challenges throughout the Fairmount Line project, have resulted in a delay of the overall Fairmount Line Improvement Project beyond the December 31, 2011 SIP deadline. However, three of the four stations – Four Corners, Talbot Avenue, and Newmarket – are open for service, although they were completed after the required SIP deadline. A reliable completion date for Blue Hill Avenue station now is expected to be in Summer 2018.*

*In its efforts to encourage new riders on the improved Fairmount Line, on July 1, 2013, the MBTA introduced a new fare structure for the Fairmount Line which makes fares on the line more competitive with MBTA rapid transit and bus fares. Travel between any two stations on the Fairmount Line, with the one exception of trips beginning or ending at Readville, has the same $2.10 fare as an MBTA subway trip.*

*Given the delays in final completion of the project, MassDOT prepared a Petition to Delay and an Interim Emission Offset Plan, to be implemented for the duration of the delay. Both the Petition and Offset Plan were submitted to DEP on July 27, 2011, and are posted to the MassDOT SIP website.*

*As described in the Offset Plan, MassDOT estimated the reduced emissions expected to be generated by the implementation of the new Fairmont Line stations. MassDOT and the MBTA, in consultation with Fairmount Line stakeholders, identified a set of potential interim emission reduction offset measures that would meet the emissions reduction targets. MassDOT submitted these proposed measures to DEP in a July 27, 2011 petition, after which time MassDOT and the MBTA continued to work to refine the offset concepts for implementation, including a second letter to DEP (dated November 29, 2011) describing changes to the proposed offsets. On January 2, 2012 (the first weekday following January 1), the offset measures were implemented: additional trips via a dedicated shuttle on the CT3 bus route between Andrew Station and Boston Medical Center and increased weekday frequency on the Route 31 bus. These services will remain in place until the Fairmount Line Improvement Project is fully complete.*

## II. GREEN LINE EXTENSION TO SOMERVILLE AND MEDFORD

### SIP Requirement

*Before December 31, 2014, construction of the following facilities shall be completed and opened to full public use: 1. The Green Line Extension from Lechmere Station to Medford Hillside; 2. The Green Line Union Square spur of the Green Line Extension to Medford Hillside; and*

- *On or before 18 months following the effective date of the regulation (December 1, 2006), MassDOT must develop a request for proposals for a design consultant, complete the competitive procurement process, and issue a notice to proceed.*
  ***Complete:*** *Design consultants engaged.*

- *Within 15 months of the completion of the above requirements, MassDOT must complete conceptual design and file an Environmental Notification Form.*
  - ✓ Done

- *On or before two years after MEPA's issuance of a scope for a Draft Environmental Impact Report or a Single Environmental Impact Report, MassDOT must complete preliminary design and file a DEIR or SEIR.*
  - ✓ Done

- *On or before one year after MEPA's issuance of a scope for a Final Environmental Impact Report, MassDOT must file an FEIR.*
  ***Complete:*** *All state and federal environmental reviews have been completed.*

- *On or before 18 months after MEPA's issuance of a certificate on an FEIR or an SEIR, MassDOT must complete final design, apply for all necessary permits, funds and grants, file any required legislation, and initiate all public and private land acquisition.*
  ***Complete:*** *Design has been completed, all permits and approvals are in hand, a Full Funding Grant Agreement has been executed and Design Build legislation has been issued and signed into law by the Governor. Major property acquisitions have begun with most parcels currently in MBTA ownership. Additional smaller parcels being acquired over the course of the next 9 months and during the course of the project as needed.*

- *Upon completion of all of the above milestones, DEP and MassDOT shall establish a schedule for project construction and deadlines for project completion.*
  ***Complete:*** *Milestones have been established and made part of the Design Build contract. The milestones will be incorporated into the DB contract.*

Extensive information about the Green Line Extension project can be found at www.mass.gov/greenlineextension.

**Project Description**

This project – the goals of which are to improve corridor mobility, boost transit ridership, improve regional air quality, ensure equitable distribution of transit services, and support opportunities for sustainable development – will extend the MBTA Green Line from a relocated Lechmere Station in East Cambridge to College Avenue in Medford, with a branch to Union Square in Somerville. The project is a collaborative effort of MassDOT and the MBTA, with the MBTA taking the lead in design, engineering, construction and project management.

The project includes the relocation of the existing commuter rail tracks, the construction of 4.3 miles of new Green Line tracks and systems, one relocated station (Lechmere) and six new stations (Union Square, College Avenue, Ball Square, Magoun Square[2], Gilman Square, and East Somerville [3]), and a new vehicle maintenance facility (VMF).

Construction of the project has been phased, with initial construction starting in 2013. The first phase was funded entirely by the Commonwealth of Massachusetts. The project was then approved for funding through the Capital Investment Grant program of the Federal Transit Administration[4], with a Full Funding Grant Agreement (FFGA) for nearly $1 billion in federal funds completed in January 2015. At the time, this amounted to a 50% share of the estimated project cost.

Late in 2015, the Massachusetts Department of Transportation (MassDOT) launched a project review that ultimately concluded that the project was trending significantly over budget, and could reach $3 billion in total project costs if trends at the time continued. The project was therefore suspended by the MBTA Fiscal and Management Control Board and the Board of the Massachusetts Department of Transportation ("the Boards") until costs could be brought back under control. Construction contracts as well as Program Management contracts were terminated. The Boards created a multidisciplinary Interim Project Management Team (IPMT), and tasked it with redesigning all aspects of the project in order to reduce its costs while maintaining the core functionality, projected benefits, and environmental mitigation commitments.

During the redesign process, MassDOT and the MBTA conducted a public outreach process that included six public meetings, two meetings with the Design Working Group, and multiple meetings with other stakeholders, such as the cities of Somerville, Medford, and Cambridge, the Conservation Law Foundation, the Friends of the Community Path, and Tufts University.

The IPMT presented a revised plan and design for the project to the Boards in May of 2016[5]. The redesign called for revisions to the stations; the vehicle maintenance facility; the viaducts and bridges; power and

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2 Formerly referred to as Lowell Street Station.

3 Formerly referred to as Washington Street Station.

4 The FTA administers the Section 5309 Capital Investment Grant Program (CIG) which provides capital funds for major transit investment projects. The GLX project met the New Starts category of eligible projects under the CIG, which includes design and construction of new fixed-guide ways or extensions of fixed-guide ways for projects with a total estimated capital cost of $250 million or more that are seeking $75 million or more in Section 5309 program.

5 May 9, 2016, *Interim Project Management Team Report: Green Line Extension Project, to the MBTA Fiscal and Management Control Board and the MassDOT Board of Directors.*

signal systems; and the associated Community Path. The station locations, platform size, and functionality all remain unchanged in the redesign.

The new total program cost is estimated at $2.3 billion. This total value includes monies that have already been spent. The gap between the last official program cost of $1.992 billion as stated in the FFGA and the current estimate of $2.289 billion is approximately $300 million. To fill that gap, the Boston Metropolitan Planning Organization has committed $157 million in federal highway funding to the project. The cities of Cambridge and Somerville committed a total of $75 million ($50 from Somerville and $25 million from Cambridge). MassDOT is providing approximately $64 million. In June 2017, the MassDOT Board of Directors voted to transfer those funds to the MBTA for the project. The FTA presented its review of the redesigned project in an August 25, 2016 letter to the MBTA which found that the project as redesigned is consistent with the FFGA which will allow MassDOT and the MBTA to partially fund the project using federal monies. They also found that the latest cost estimates are complete and well documented, and that the project schedule is mechanically sound, but potentially optimistic.

On August 8, 2016, the MBTA began the process of procuring a new construction team using the Design-Build procurement method, described below.

**Project as Previously Conceptualized and Proposed**

A full description of the Green Line Extension project can be found in past reports on the State Implementation Plan.

**Changes to the Project**

The 2016 redesign of the project modified many design elements and proposed changes to the project implementation methods, but the redesign maintains the core functionality of the project and provides the same benefits. As with the original project design, the revised design consists of a 4.3mile extension of the existing Green Line light rail service to College Avenue in Medford and Union Square in Somerville. It includes the relocation of existing commuter/freight rail track, construction of light rail track and systems, construction or rehabilitation of viaduct structures, and implementation of new power, signals and communications equipment. The revised design includes the same stations in the same locations as originally planned.

Factors which affect potential trip generation and air quality benefits, including the number and location of stations and platform size, as well as span of service and service frequency, are the same for the redesign concept as was originally proposed.[6] The Green Line Extension service as redesigned will still provide six-minute headways in the weekday peak period, with service every 8 to 11 minutes in the weekday off-peak period, every 13-14 minutes on weekday evenings, and every 8 to 10 minutes on weekends.

Project cost reductions were realized through modification of project design elements, including:

- Redesign of the stations – transforming them from sizable, enclosed structures to open-air platforms akin to what has been in use for decades on the existing surface Green Line.
- A substantially reduced Green Line vehicle maintenance facility, which will provide light maintenance and storage.

[6] It should be noted that the Community Path was not a factor in determining the number of transit trips.

- Preservation of a number of bridges along the project corridor and reduced reconstruction of others.
- An alternative version of the multiuse Community Path.
- An alternative version of the Lechmere viaduct structure.
- Modifications to retaining walls to reduce height and simplify construction.
- Modifications to traction power substations at Red Bridge, Gilman Square, and Ball Square.
- An alternative construction plan and schedule that would allow a construction contractor greater and more flexible access to the work area.
- A reduced construction scope, which is intended to reduce the overall project schedule and risk profile.

**Additional Detail: Stations**

The redesigned stations include simple open air platforms with weather shelters, fare vending, station lighting and CCTV, an emergency egress route where required, bike storage, and other required features. All stations will meet access requirements. For stations with significant changes of grade (such as Gilman Square), the redesign includes an elevator and access stairs. For the stations at Lechmere and College Avenue, the redesign includes redundant elevators.

A summary comparison of the previous design and the redesign station is provided in the table below.

**COMPARISON OF STATION DESIGN AND REDESIGN**

| Function | Previous Design | | | | | | | Redesign | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lechmere | Union Sq. | Washington | Gilman Sq. | Lowell St. | Ball Sq. | College Ave | Lechmere | Union Sq. | Washington | Gilman Sq. | Lowell St. | Ball Sq. | College Ave |
| Elevators | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | N | N | 1 | 1 | N | 2 |
| Escalators | Y | Y | Y | Y | Y | Y | Y | N | N | N | N | N | N | N |
| Stairs | Y | Y | Y | Y | Y | Y | Y | Y | N | N | Y | Y | N | Y |
| Ramp | N | N | N | Y | Y | N | Y | N | N | N | Y | N | N | N |
| Fare vending | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Fare arrays | Y | Y | Y | Y | Y | Y | Y | N | N | N | N | N | N | N |
| Canopies | Y | Y | Y | Y | Y | Y | Y | Weather Shelters | Weather Shelters | Weather Shelters | Weather Shelters | Weather Shelters | Weather Shelters | Weather Shelters |
| Platforms | 4-Car | 3-Car | 3-Car | 3-Car | 3-Car | 3-Car | 3-Car | 4-Car | 3-Car | 3-Car | 3-Car | 3-Car | 3-Car | 3-Car |

Features of the redesign for each station which are summarized in the chart above, include:

- **Lechmere Station:** Reduced north headhouse, with redundant elevators and a platform with four weather shelters. The south headhouse includes emergency egress and stairs, as well as drop-off for The RIDE and a bike storage area.

- **East Somerville Station:** Open air station, platforms with three weather shelters, at-grade crossing of track, and a bike storage area.

- **Gilman Square Station:** Open air station, one elevator and stairs, platforms with three weather shelters, and a bike storage area.

- **Magoun Square Station:** Open air station, one elevator and stairs, a platform with three weather shelters, and a bike storage area.

- **Ball Square Station:** Open air station, platforms with three weather shelters, a bike storage area, and at-grade crossing of track.

- **College Avenue Station:** Reduced structure (Tufts University future development preserved), platforms with three weather shelters, redundant elevators, drop-off for The RIDE on Boston Avenue, and a bike storage area.

- **Union Square Station:** Open air station platform with three weather shelters, drop-off for The RIDE to be included as part of an adjacent private development, and a bike storage area.

**Additional Detail: Vehicle Maintenance Facility**

The redesigned maintenance facility includes a 55,000-square foot maintenance building with capacity to store 44 light-rail vehicles outside; a modular structure of 1,200 square feet; surface parking; four service tracks; and other facilities. Certain foundational and structural elements have been sized for potential future expansion should funding become available. The VMF remains on the same site as previously proposed.

**Additional Detail: Extension of the Somerville Community Path**

The Somerville Community Path has been the subject of extensive discussion, process, and coordination throughout the development of the Green Line Extension project. The project as described in its environmental documents included planning, design, and engineering for the proposed extension of the Somerville Community Path between Lowell Street and Inner Belt Road in the vicinity of East Somerville Station; however, there was no commitment to construct the Path. After the completion of the state and federal environmental review processes, the MBTA decided to incorporate the construction of the Path into the project. However, the MBTA did not make the Community Path part of its mitigation commitments.

This design for Somerville Community Path has been identified as a major driver of the forecasted cost increase for the overall project. The cost of the previous design of the Path was driven by two factors in particular:

- The extensive retaining walls between the Magoun Square and East Somerville Stations
- The viaduct section near Lechmere Station

To reduce Community Path costs, two options were evaluated:

- **Total Elimination of the Path:** A preliminary redesign of the Green Line Extension corridor without a Community Path was developed in order to assess feasibility. Based on this evaluation, the IPMT determined that the project could be built without the Path, with significant cost savings, and that nothing in the redesign would preclude the future construction of the Community Path as designed.

- **Alternate Alignment:** While elimination of the Path would result in the greatest savings, MassDOT and the MBTA believe the Path to be an important element of the project and commitment to the corridor communities. Therefore, the IPMT developed a redesigned Community Path that that will cost less while still maintaining its core functionality. The most important difference between the original Path design and the redesigned Path is that the Path now ends prior to Lechmere Station, in order to eliminate the previous design's costly viaduct structure.

Aware of a strong public desire for the Community Path to be constructed in its entirety, the MBTA decided to include a series of 'additive options' as part of the procurement of a construction team. The MBTA is asking bidders to provide estimated costs for project elements (additional elevators, improved canopies, improvements to the VMF, etc.) that the MBTA would like to include, if they are affordable.

One of the potential add-ons is a complete Community Path to Lechmere Station, as well as an improved connection at Chester Street. When proposals are received from bidders during the fall of 2017, the MBTA will evaluate the costs of each item and determine if these improvements to the Community Path can be included without exceeding the MBTA's affordability limit.

**Environmental Review**

On January 31, 2017, the MBTA filed a Notice of Project Change (NPC) with the Executive Office of Energy & Environmental Affairs. The NPC discussed all of the changes proposed to the project as described above, including changes to station design, VMF, Community Path, and construction methodology. The Executive Office of Energy & Environmental Affairs accepted public comment on the NPC for twenty days and issued a Certificate on March 10, 2017, in which it determined that the NPC adequately and properly complied with the Massachusetts Environmental Policy Act and that the changes proposed did not require the submittal of a Supplemental Environmental Impact Report. Most importantly, EEA determined that *"(t)he primary factors that affect ridership – station locations, platform sizes, span of service and frequency of service – have been retained."* As a result, the anticipated ridership and air quality benefits of the project should still be realized.

**Schedule**

As part of its May 2016 findings and recommendations to the Boards, the IPMT proposed to use a design-build contract to complete the remaining construction work. The FMCB accepted the IPMT's findings and proposed approach for delivery.

Since then, the MBTA has progressed plans to construct the remainder of the project using the design-build procurement method. To prepare for the design-build work, the MBTA has issued four early track work construction contract packages to be performed by the MBTA's commuter rail force account contractor. The MBTA started the RFP process for the remainder of the work in November 2016 with a construction industry outreach forum. The MBTA then issued a Request for Qualifications (RFQ) on December 7,

2016, with responses received on January 18, 2017. Three qualified design-build teams were selected on February 24, 2017. On May 23, 2017, the MBTA issued the Request for Proposal (RFP) documents for the design-build procurement, which included the contract, plans, specifications, and technical requirements. Responses are due in September of 2017, and it is anticipated that a preferred bidder will be selected in December of 2017. The current project schedule anticipates construction to commence in of the first half of 2018, with full revenue service commencement before the end of 2021. This schedule is presented in the RFP and will be a contractual requirement of the DB Contractor.

Concurrent to these activities, the MBTA has expanded its in-house management team for the project, including a dedicated and experienced Program Manager and Deputy Program Managers, as well as additional employees to focus on issues such as procurement, design, construction, project controls, and other key issues. As the project progresses in construction, additional employees will be added to the team as necessary. The MBTA has also engaged a Program Management/Construction Management firm to provide technical, environmental and programmatic oversight assistance to the MBTA, as well as support on project controls, project tracking and document control functions.

Lastly, as required by state law, the MBTA has engaged an Owner's Representative to monitor the project for adherence to both schedule and costs, and to report annually on the status of the project to the Massachusetts Legislature.

**SIP Requirement Status**

By filing an Expanded Environmental Notification Form, procuring multiple design consultants, and publishing both Draft and Final Environmental Impact Reports, MassDOT has met the first four interim milestones associated with the Green Line Extension project. MassDOT – which has committed substantial resources to the Green Line Extension project, a top transportation priority of the Commonwealth and the largest expansion of the MBTA rapid transit system in decades – has transitioned the project from the planning and environmental review phases to design, engineering, and eventual construction, coupled with the tasks associated with programming federal funding.

By completing the design, securing all permits and approvals, executing a Full Funding Grant Agreement, and acquiring the necessary property for the project, MassDOT has also met the fifth interim milestone (*"On or before 18 months after MEPA's issuance of a certificate on an FEIR or an SEIR, MassDOT must complete final design, apply for all necessary permits, funds and grants, file any required legislation, and initiate all public and private land acquisition."*

Milestones for project completion have been established and made part of the Design Build contract. The milestones will be incorporated into that contract. By establishing these milestones, MassDOT has met the sixth and final interim milestone found in the SIP regulation. *("Upon completion of all of the above milestones, DEP and MassDOT shall establish a schedule for project construction and deadlines for project completion.")*

In the 2011 SIP Status Report, MassDOT reported that the Green Line Extension project would not meet the legal deadline of December 31, 2014.

The timeline for overall project completion represents a substantial delay beyond the SIP deadline of December 31, 2014, triggering the need to provide interim emission reduction offset projects and measures for the period of the delay (beginning January 1, 2015). Working with the Central Transportation Planning Staff, MassDOT and the MBTA calculated the reductions of NMHC, CO, and NOx – reductions

equal to or greater than the reductions projected for the Green Line Extension itself, as specified in the SIP regulation – that are required for the period of the delay.

In June 2012, MassDOT released a list of potential mitigation ideas received from the public that could be used as offset measures. In the summer and fall of 2012, MassDOT solicited public comments on these potential measures. The MBTA created an internal working group to determine a final portfolio of interim mitigation measures to implement by December 31, 2014, the legal deadline for the implementation of the Green Line Extension.

This work resulted in a recommendation to implement the following three interim mitigation measures which collectively would meet the emissions reduction target for the project:

- Additional off-peak service along existing routes serving the corridor, including the Green Line, and bus routes 80, 88, 91, 94 and 96;
- Purchase of 142 new hybrid electric vehicles for The RIDE;
- Additional park and ride spaces at the Salem and Beverly intermodal facilities.

The Petition to Delay was submitted to the Massachusetts Department of Environmental Protection (DEP) on July 22, 2014, and expanded further on the analysis and determination of the interim offset measures. In a letter dated July 16, 2015, the DEP conditionally approved MassDOT's request to delay the Green Line Extension project and the implementation of the above interim mitigation measures. Both the 2014 Petition to Delay and the July 2015 Conditional Approval are available on MassDOT's website. Interim offset measures will remain in place for as long as is necessary.