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Introduction

1.1 Major Investment Study/Alternatives Analysis Overview

The purpose of the Massachusetts Bay Transportation Authority's (MBTA's) Beyond Lechmere Northwest Corridor Major Investment Study/Alternatives Analysis (MIS/AA) is to define the most appropriate transit investment strategy for improving mobility and regional access for residents in the northwest corridor communities of Cambridge, Somerville and Medford. The Beyond Lechmere Northwest Corridor Study investigates cost-effective transit solutions that will increase transit accessibility, improve corridor mobility, increase transit ridership, improve regional air quality, ensure equitable distribution of transit services, and support opportunities for smart growth initiatives and sustainable development.

The MIS/AA offers the opportunity to evaluate the various modes of transit services and alternative alignments that will meet the needs of the study area. It is the goal of this MIS/AA to identify conceptual routing options, operational characteristics, environmental issues, costs, and design constraints. Additionally, the MIS/AA allows an opportunity for stakeholders to participate in an open and collaborative planning process.

1.2 Study Background

Improvements to transit service in the study area have been the subject of several studies over the past 40 years. One of the objectives of the 1962 North Terminal Area Study was to "design a new transit alignment to permit a future branch extension (of the Green Line) to Somerville and communities northwest along the right-of-way of the Boston and Maine Railroad". The 1973 Boston Transportation Planning Review Northwest Study focused on this issue by identifying and evaluating various bus, commuter rail, and Green Line extension alternatives in the "Somerville Radial Corridor". In 1981, the MBTA conducted

the Green Line Northwest Project Study, which provided an evaluation of transit alternatives beyond Lechmere Station.

In the late 1980s, the MBTA advanced the design of a relocated Lechmere Station to the eastside of Monsignor O'Brien Highway. This new station would have provided commuter parking as well as a storage facility for trolleys. This project was halted due to funding constraints. In 2000, the MBTA signed a public-private partnership agreement that provides for the relocation of Lechmere Station.

The Commonwealth of Massachusetts, in obtaining environmental permits for the Central Artery/Tunnel (CA/T) Project in the early 1990s, committed to implementing a number of Boston region transit improvement projects as mitigation measures. The transit project commitments included a Green Line Extension to Medford Hillside. The September 2000 Administrative Consent Order, which updated the original 1991 agreement, specified a December 2011 date for completion. In early 2005, the Administrative Consent Order was again amended and included a provision specifying a process for reevaluation and possible substitution of the three remaining transit commitment projects, one of which was Green Line Extension to Medford Hillside. The project reevaluation process taking account of air quality benefits and Boston Region Metropolitan Planning Organization priority-setting review criteria is scheduled to be completed in 2005

1.3 Historical Perspective

The area encompassed by this study has a long history of transit usage. The Boston region's first street railway consisted of a single car, which in 1852 began service between Harvard Square and Union Square in Somerville. Over the next 50 years, routes and services were continuously expanded, typically following existing paths and roadways. By the early 1900s, a network of streetcar lines had evolved which served to shape the structural pattern of residential and commercial development throughout the area. The routes also evolved to provide connections to the Main Line Elevated at Sullivan Square. In Somerville, these streetcar routes were located on Broadway, Boston Avenue, College Avenue, Highland Avenue, Main Street, Medford Street, Pearl Street, Beacon Street, Summer Street, Washington Street, Somerville Avenue, Webster Avenue, Cross Street, Holland Street and Elm Street. The routes also extended north into Medford Square along High Street, Main Street and the Fellsway Line.

Many of these streetcar routes continued in operation into the 1940s, when they were converted to trackless trolley operation. The Clarendon Hill - Lechmere routes on Highland and Somerville Avenues operated upwards of 110 trip runs per day in the 1940s. These routes are continued today as part of the MBTA's local bus network.

Rapid transit services were provided to the east and the west of the study area. The Old Orange Line began as an elevated rail in Everett. In 1975, the El to Everett was closed and the Orange Line was rerouted to Malden Center, with a stop at Wellington. In 1977, the Orange Line was extended to Oak Grove. This route provided rapid transit for communities north of Boston. The Red Line was extended beyond Harvard to Alewife in 1984, with additional stations at Davis Square and Porter Square.

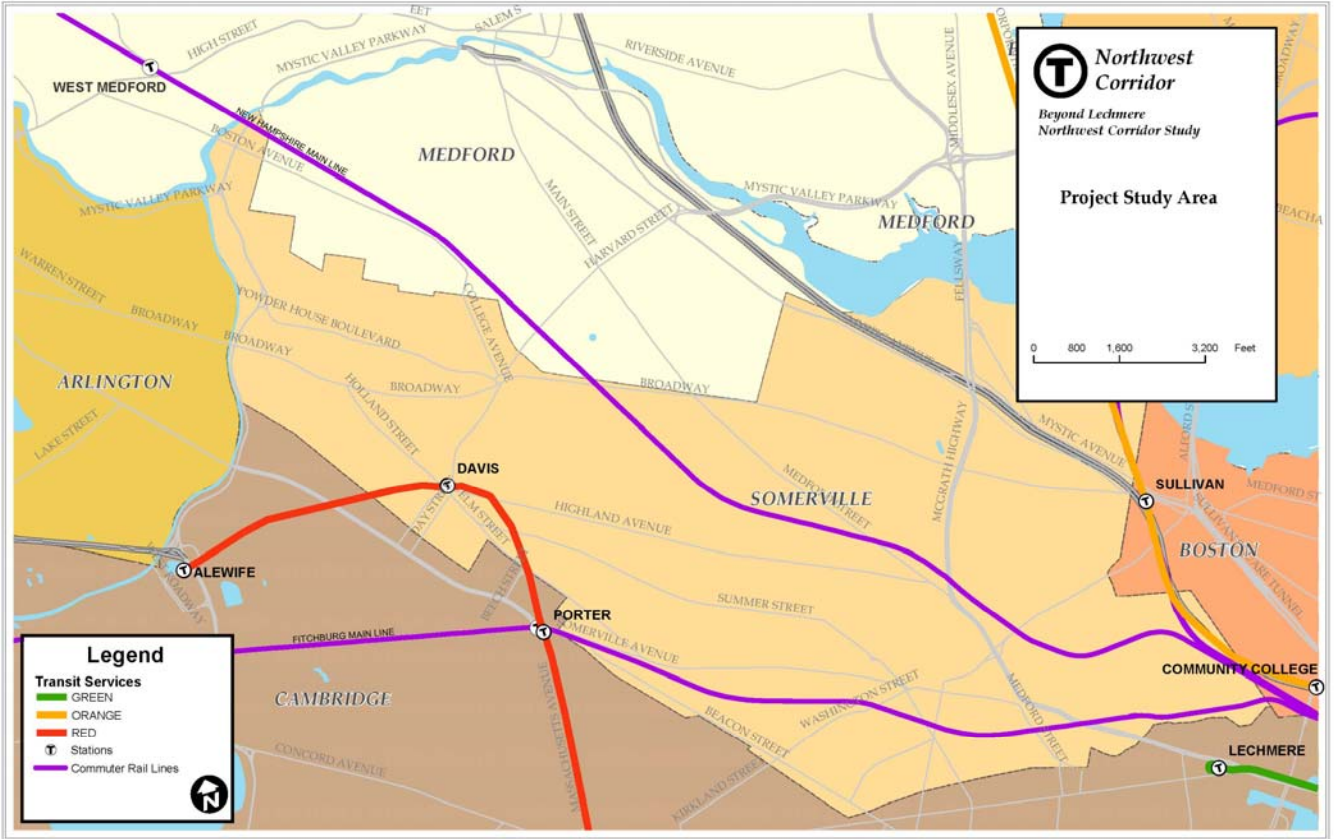
Area commuter rail dates back to 1835 when the New Hampshire Mainline (also known as the Lowell Line) was constructed. In 1841, commuter rail service was established along the Western Route, also known as the Fitchburg Line. Until the late 1800s/early 1900s, on these lines the Boston & Maine Railroad furnished limited commuter rail service at eight stations in Somerville and three stations in Medford. These stations included: Milk Row, Prospect Hill, Winter Hill, Somerville Junction, North Somerville, Somerville (at Park Street), Prospect Street, Union Square, Tufts College, Medford Hillside/Winthrop Street and West Medford.

Today, the Lowell Line and Fitchburg Line continue to operate through the study area. However, commuter rail service can only be accessed at Porter Square via the Fitchburg Line and at West Medford Station via the Lowell Line. On the eastern and western edges of the study area, transit markets are served by the rapid transit lines of the Red and Orange Lines. Stations stops are located on the periphery of the study area via the Red Line at Porter Square in Cambridge and Davis Square in Somerville, and via the Orange Line at Sullivan Square in Boston and Wellington Station in Medford. Although the rapid transit lines border the area, there is no rail service that directly serves the study area.

1.4 Overview of Study Area

The study area for the Beyond Lechmere Northwest Corridor Study is generally bounded by Interstate 93 and the Orange Line to the east, the Red Line and Fitchburg Commuter Rail Line to the west and south, and the West Medford Commuter Rail Station to the north. This area includes East Cambridge, Somerville and portions of Medford (Medford Hillside and West Medford). The area consists of densely settled urban corridors with a large base of commuters and transit users. The study area was defined based on community input as an area that is currently underserved by fixed-guideway transit. Figure 1-1 shows the study area for the Beyond Lechmere Northwest Corridor Study.

Figure 1-1 –Project Study Area



1.5 Relationship to the FTA Planning and Project Development Process

The FTA’s process for the planning and development of a project consists of four steps: (1) systems planning; (2) National Environmental Policy Act (NEPA) compliance/alternatives analysis and preliminary engineering (PE); (3) final engineering; and (4) construction. The systems planning and NEPA/PE portion of the process is intended to be carried out as part of the overall metropolitan planning (23 CFR Part 450 FTA/FHWA Joint Final Rule on Metropolitan and Statewide Planning) and environmental review (23 CFR Part 771 Final Rule on Environmental Impact and Related Procedures) processes.

The MIS/AA is the first step of the planning process. The intent of the MIS/AA is to identify and compare the costs, benefits, and impacts of a range of transportation alternatives. FTA views the MIS/AA as a “bridge” between the systems planning process (macro-level metropolitan scale evaluation of regional travel patterns and transportation corridor needs) and preliminary engineering (micro-level design refinement). The MIS/AA is expected to document the full

range of alternatives considered consistent with the Purpose and Need of the study.

If a decision is made to pursue Federal Transit Administration (FTA) funding for improvements in the Beyond Lechmere Northwest Corridor study area, the planning process for the project would need to conform to the FTA's planning and project development guidelines. This MIS/AA has been prepared following FTA guidelines for such documents, to maintain eligibility for FTA funding for the project.

1.6 Community Involvement

1.6.1 Advisory Group

To ensure that local concerns and issues were addressed as part of the planning process, an Advisory Group was established to work with the Study Team and meet regularly throughout the study period. The Advisory Group consisted of project stakeholders, including elected officials, businesses, and residents, as well as representatives from the areas of education, environment, labor, social services and transportation. This group represented the various interests of Cambridge, Somerville and Medford; assisted the MBTA in identifying project goals and objectives; provided insight on local concerns and issues; reviewed project documents; and conducted outreach to promote community involvement in project-related meetings.

1.6.2 Public Meetings

The MBTA hosted a series of community meetings in October and November 2004 to update residents on the progress of the study and to receive input on alternatives under consideration. A meeting was held in each community - Cambridge, Somerville and Medford - and was coordinated with city officials. Interpreters were provided at the Cambridge and Somerville meetings for those members of the public requiring such services. An Open House was held prior to each meeting for members of the Study Team to answer questions from the public and for the public to review study materials.

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