



# BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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Arnold J. Soolman  
Director, MPO Staff

The Boston Region MPO, the federally designated entity responsible for transportation decision-making for the 101 cities and towns in the MPO region, is composed of the following:

Executive Office of Transportation  
and Public Works

City of Boston

City of Newton

City of Somerville

Town of Bedford

Town of Braintree

Town of Framingham

Town of Hopkinton

Metropolitan Area Planning Council

Massachusetts Bay Transportation  
Authority Advisory Board

Massachusetts Bay Transportation  
Authority

Massachusetts Highway Department

Massachusetts Port Authority

Massachusetts Turnpike Authority

Regional Transportation Advisory  
Council (nonvoting)

Federal Highway Administration  
(nonvoting)

Federal Transit Administration  
(nonvoting)

## DRAFT MEMORANDUM

**DATE** August 20, 2009  
**TO** Transportation Planning and Programming Committee  
of the Boston Region Metropolitan Planning Organization  
**FROM** Arnold J. Soolman, CTPS Director  
**RE** Work Program for: Foxborough Commuter Rail Station  
Feasibility Study

### ACTION REQUIRED

Review and approval

### PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization, upon the recommendation of the Executive Office of Transportation and Public Works, vote to approve the work program for Foxborough Commuter Rail Station Feasibility Study in the form of the draft dated August 20, 2009.

### PROJECT IDENTIFICATION

Unified Planning Work Program Classification  
Assistance to MBTA Development

CTPS Project Number  
To be determined

Client  
Massachusetts Bay Transportation Authority (MBTA)  
*Project Supervisor:* Ronald Morgan

CTPS Project Supervisors  
*Principal:* Karl Quackenbush  
*Manager:* Scott Peterson

Funding  
To be determined

## IMPACT ON MPO WORK

The MPO staff has sufficient resources to complete this work in a capable and timely manner. By undertaking this work, the MPO staff will neither delay the completion of nor reduce the quality of other work in the UPWP.

## BACKGROUND

This study involves analyzing the feasibility of converting the commuter rail stop in Foxborough into a full-time stop. The Executive Office of Transportation and Public Works and the MBTA are working in close coordination with the Town of Foxborough and owner of the property adjacent to Gillette Stadium to determine the potential of using this station as a full-time stop. To examine this question, they have asked the Central Transportation Planning Staff to analyze the transportation demand for this station under various service plans.

Foxborough Station is on the MBTA commuter rail system and is currently only used for special events, such as the New England Patriots football games and concerts at nearby Gillette Stadium. It lies on the line between Mansfield and Framingham that is not currently used for regular passenger service, owned by CSX, which is shown in Figure 1. The line was part of Conrail until 1998, when it passed to CSX. Nonstop trains to the station come from Boston's South Station via the Franklin Line to Walpole, and from Providence via the Providence/Stoughton Line to Mansfield.

## OBJECTIVE

The objective of this study is to perform travel demand analysis, including sensitivity testing, for up to six model scenarios in order to understand the demand for a full-time commuter rail stop in Foxborough.

## WORK DESCRIPTION

### Task 1 Perform Base-Year Model Calibration

Modeling of the 2007 base year will use the best and most current planning and modeling assumptions available to CTPS at the time of the issuance of the notice to proceed. The commuter rail, rapid transit, and major bus line boardings in the study area shown in Exhibit 1 will be calibrated by grouping together stations and stops having similar characteristics and geographic proximity along each transit line. Boardings by line will be calibrated in such a way that the modeled numbers for each of the groupings are within 10 percent of the observed data for respective groupings.

#### *Product of Task 1*

A well calibrated transit model set.

## Task 2 Develop Service Plans for the Build Alternatives

CTPS will develop service plans that maximize service to Foxborough Station within the constraints of the existing infrastructure, freight usage, and proposed improvements, such as South Station Expansion and the South Coast Rail Improvements.

### *Product of Task 2*

Service plans for a maximum of two build scenarios.

## Task 3 Prepare Forecast-Year Inputs and Apply Model

CTPS will forecast demand for the horizon year of 2030 using two different land use assumptions as input into the travel demand model: one will be based on the adopted land use that was used in the 2009 amended Regional Transportation Plan for the horizon year of 2030, and the second one will pivot off of the amended land use, but assumes a build-out scenario for Foxborough and its neighboring communities. This will allow CTPS to generate a lower and upper bound for demand. The build-out scenarios will be provided by the concerned communities, identifying changes in population, households, and employment by transportation analysis zone if possible.

For each land use assumption, CTPS will create a no-build scenario and a maximum of two build scenarios, using service plans created in Task 2. Model inputs for both land use scenarios and service plans—such as congested-highway travel times, auto operating costs, central business district parking costs, transit fares, and travel times—will be consistent with the currently adopted land use and background transportation projects assumed in the 2009 amended Regional Transportation Plan.

### *Product of Task 3*

Detailed travel demand results for the forecast-year scenarios.

## Task 4 Analyze and Summarize Travel Demand Results

All scenario results obtained from the assignment and the mode choice models will be summarized in tabular form. Systemwide statistics, such as total linked transit trips, auto trips, and unlinked transit trips by submode, will be analyzed in detail to determine the demand associated with Foxborough Station. Other transit lines and bus routes will be examined to ascertain the impact of a new station on them. Parking demand at the new station and its neighboring stations will be examined in order to help determine the size a new parking lot would need to be in order to accommodate the demand being forecasted for it. Revenue estimates from fare collection and parking fees will be summarized by station and for the whole transit system.

Emissions from pollutants will be examined to determine the regional impact of changes to the traffic flows and additional locomotives to the transit system.

*Product of Task 4*

A spreadsheet summarizing the forecast-year travel demand results for the different scenarios and graphics as needed.

Task 5 Examine Traffic Impacts Due to the Proposed Parking

CTPS will examine the traffic impacts for up to four roadway locations near the new full-time parking facility at Foxborough Station in the peak periods.

*Product of Task 5*

An analysis of the cost of improving the transportation infrastructure to accommodate a commuter rail station and parking.

Task 6 Produce Technical Report

CTPS will produce a technical report describing the model, the results of the travel demand analyses, traffic impacts, and costs associated with the project.

*Product of Task 6*

A technical report documenting the project.

Task 7 Coordinate with Stakeholders

Coordinate with the stakeholders and attend meetings with them as needed.

*Product of Task 7*

Coordinating with stakeholders

## ESTIMATED SCHEDULE

It is estimated that this project would be completed six months after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 2.

## ESTIMATED COST

The total cost of this project is estimated to be \$66,524. This includes the cost of 24.3 person-weeks of staff time, overhead at the rate of 88.99 percent, and travel. A detailed breakdown of estimated costs is presented in Exhibit 3.

Exhibit 1  
PROPOSED FOXBOROUGH COMMUTER RAIL STATION  
Foxborough Commuter Rail Station Feasibility Study

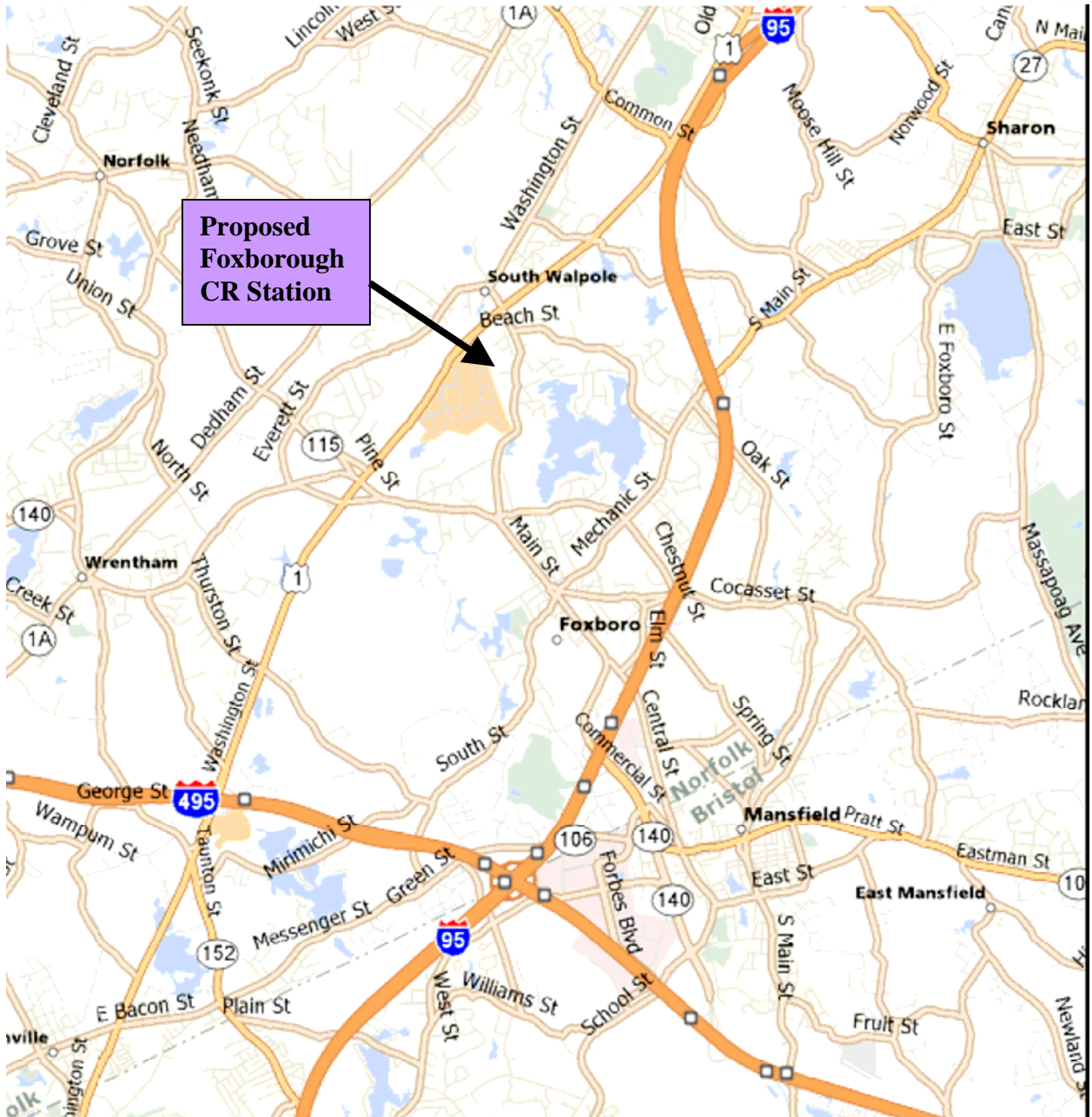
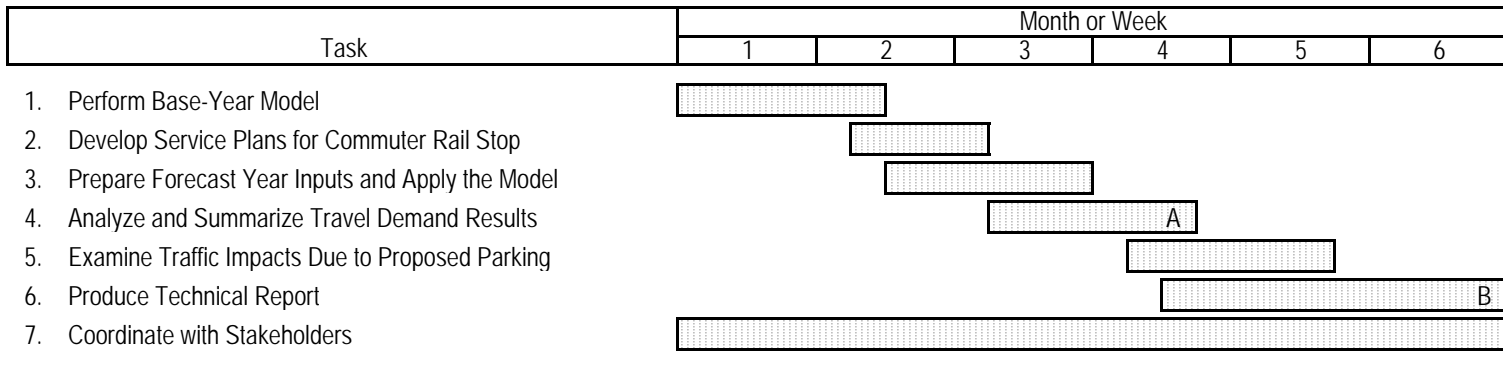


Exhibit 2  
 ESTIMATED SCHEDULE  
 Foxborough Commuter Rail Station Feasibility Study



Products/Milestones

A: Travel demand results

B: Technical report on method and results

Exhibit 3  
**ESTIMATED COST**  
 Foxborough Commuter Rail Station Feasibility Study

<b>Direct Salary and Overhead</b>	<b>\$65,824</b>
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Task	Person-Weeks					Direct Salary	Overhead (@ 88.99%)	Total Cost
	M-1	P-5	P-4	P-3	Total			
1. Perform Base-Year Model	0.3	0.7	2.0	1.2	4.2	\$5,282	\$4,701	\$9,983
2. Develop Service Plans for Commuter Rail Stop	0.3	0.2	1.5	0.0	2.0	\$2,640	\$2,349	\$4,989
3. Prepare Forecast Year Inputs and Apply the Model	0.4	2.6	5.3	0.0	8.3	\$11,268	\$10,027	\$21,295
4. Analyze and Summarize Travel Demand Results	1.0	1.2	0.1	1.5	3.8	\$5,217	\$4,643	\$9,860
5. Examine Traffic Impacts Due to Proposed Parking	0.2	2.1	0.0	0.0	2.3	\$3,677	\$3,273	\$6,950
6. Produce Technical Report	1.6	0.7	0.0	1.5	3.8	\$5,280	\$4,698	\$9,978
7. Coordinate with Stakeholders	0.7	0.2	0.0	0.0	0.9	\$1,465	\$1,304	\$2,769
Total	4.5	7.7	8.9	4.2	25.3	\$34,830	\$30,995	\$65,824

<b>Other Direct Costs</b>	<b>\$700</b>
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Travel	\$200
Printing	\$500

<b>TOTAL COST</b>	<b>\$66,524</b>
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**Funding**

To be determined