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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)

MEMORANDUM

DATE July 16, 2009

TO Transportation Planning and Programming Committee of the Boston Metropolitan Planning Organization

FROM Arnold J. Soolman, CTPS Director

RE Work Program for: Inner-Suburban Mobility Study

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Metropolitan Planning Organization vote to approve the work program for Inner-Suburban Mobility Study in the form of the draft dated July 16, 2009.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification
Planning Studies

CTPS Project Number
11362

Client
Metropolitan Planning Organization

CTPS Project Supervisors
Principal: Elizabeth Moore
Manager: Annette Demchur

Funding
EOT §5303 3C Transit Planning Contract #MA-80-0003

IMPACT ON MPO WORK

This is MPO work and will be carried out in conformance with the priorities established by the MPO.

BACKGROUND

Decentralization of population and employment over the last several decades has resulted in changes in travel patterns. In the Boston metropolitan area, the inner-suburban communities inside and along the Route 128 beltway have witnessed substantial growth in residential, commercial, and medical facility development. This has resulted in a significant increase in inter-suburban travel. Additionally, many inner-suburban communities are embracing smart-growth principles, which will lead to increased population and employment density in these growth areas in suburban centers and regional hubs.

Existing MBTA transit services are predominantly radially oriented (for travel to and from Boston), and inter-suburban transit service is mostly limited to intermediate points along these routes. The establishment of transit services that promote inter-suburban connectivity and directly serve densely developed suburban residential, commercial, educational, and medical centers would improve mobility for people whose transportation needs are not met by the existing transit network, and it would provide an alternative to the private automobile. Linking inter-suburban transit to the existing transit network might also facilitate reverse-commute trips by residents of the urban core.

OBJECTIVE

The objective of this study is to determine the potential for new suburban transit service to link suburban activity centers in common travel corridors and connect to the existing transit network. This service would provide improved circumferential connectivity and numerous suburb-to-suburb travel options that would require at most one transfer, and could potentially lead to reduced dependence on the private automobile. Inter-suburban transit service could be supportive of the regional goals of increasing environmental sustainability, accommodating economic development, promoting growth management, and increasing transit-oriented development.

Since the scope of this task will cover all the inner-suburban municipalities in the Boston Region MPO area, and the project funding is not sufficient to allow for detailed ridership projections, the potential new services will be described at a conceptual level (identifying major activity centers, transportation hubs, and travel corridors to be served; examining potential service delivery standards; and investigating institutional arrangements which may be required to successfully implement these services). These concepts can then be reviewed by the Transportation Planning and Programming Committee to determine whether more-in-depth analyses should be performed.

WORK DESCRIPTION

Task 1 Review Findings of Previous Suburban Transit Studies

Project staff will review available resources related to suburban transit in order to develop a framework for determining the nature of suburban transit services that might be successful in the inner suburbs. The review will be designed to yield answers to the following questions.

- What has been the experience in implementing suburban transit and, specifically, inter-suburban transit? What factors are important in planning such services?

- What factors govern the success of such services? What types of development appear to be necessary to support suburban transit services? What other factors—service hours, reliability, marketing, sponsorship, frequency, route location, route length—are critical to the success of these services?

- What are the institutional issues involved in providing inter-suburban transit?

- What are the market(s) that could be served: commuters, health and human services trips, shopping trips, or other kinds of non-work trips?

The review will include a survey of local, national, and international studies and services. The local studies will include: *Suburban Transit Opportunities Study: Phase I* (2004), *Regionwide Suburban Transit Opportunities Study: Phase II* (2005), the MBTA's *Program for Mass Transportation* (2009), *MBTA Reverse Commuting Study* (2001), and other less formal reviews. The national studies will include several studies published by the Transportation Research Board: *Guidelines for Enhancing Suburban Mobility Using Public Transportation* (1999), *Guidebook for Evaluating, Selecting, and Implementing Suburban Transit Services* (2006), and *Innovative Suburb-to-Suburb Transit Practices* (1995).

The review will also include informal surveys of staff of other, peer MPOs and transit properties to collect information about their experiences in providing inter-suburban transit services. Information will be collected about the types of vehicles used, service frequency, span of service, costs, coverage, and institutional issues.

The findings of this task will be used to define factors that should be considered in planning new suburban transit services and to investigate potential service delivery standards.

Product of Task 1

Technical memorandum summarizing findings in the literature and applicable factors to consider in planning potential transit services in the Boston area inner suburbs.

Task 2 Screen Potential Target Markets

While suburban development patterns have resulted in lower average densities of traditional trip-generating development, there are still some areas of relatively dense population, employment, and other trip generators. This task will identify areas in the inner suburbs where trip-generating densities are highest by analyzing the following characteristics.

- Residential population densities and transit dependency: Areas with the highest population densities and those with the highest concentrations of people who may be transit dependent represent areas where transit services could be targeted. Data concerning household income, auto ownership, minority status, limited English proficiency status, age, and disability status will be used to identify populations most likely to be transit-dependent.

- Employment densities: Large suburban employment centers generate many trips within and between suburbs, mainly in the peak periods, and are potential target areas for transit service. The location of employment centers, combined with information concerning residential population densities and U.S. census journey-to-work data, can be used to identify travel corridors.

- Locations of other activity generators: Downtown business centers, shopping centers, colleges or universities, hospitals and medical centers, and government services centers are all trip-generating centers.

- MAPC population and employment forecasts for the area, including proposed MetroFuture development, along with any data on major developments since the 2000 census.

- Existing transit centers: Connections with commuter rail and rapid transit stations may facilitate single-transfer circumferential and reverse-commute travel that is currently not possible on the existing transit network.

This information will be combined to produce maps showing the locations of existing and potential future major trip generators, transit facilities, and proposed areas of future growth.

Products of Task 2

Maps depicting activity centers, target population centers, growth centers, and major transportation facilities

Task 3 Analyze Existing and Past Transit Service

Project staff will identify existing transit services in the area, including those provided by the MBTA and regional transit authorities (RTAs), communities and community organizations, private carriers, and transportation management associations (TMAs). These services will be examined in terms of how they could be modified to serve the identified trip generators and improve inter-suburban connectivity.

In addition, staff will contact communities to solicit information on any local transportation studies that have been undertaken, and any past and possible future transit services. Transit services that were both successful and unsuccessful will be examined to ascertain factors that may contribute to successful inter-suburban transit.

Based on the information gathered, ideas for new services will be developed at the conceptual level.

Products of Task 3

Map of existing transit services in relation to trip generators and a memorandum summarizing information obtained and presenting ideas for new services.

Task 4 Identify Service Parameters and Potential Institutional Arrangements

On the basis of the findings of Tasks 1 and 3, staff will suggest service parameters that could be used to form the basis of a service delivery policy for inter-suburban transit.

Also based on information gathered in Tasks 1 and 3, staff will examine the institutions that are currently used to provide inter-suburban services in the Boston region, as well as those used in other parts of the U.S. and abroad. Suggestions will be made regarding the types of institutional arrangements that might be engaged to successfully implement the types of inter-suburban transit services suggested in Task 3.

Product of Task 4

Technical memorandum summarizing potential service delivery standards, as well as the various types of possible institutional arrangements, highlighting those that could be the most successful for the types of potential services identified in Task 3.

Task 5 Prepare a Final Report

Staff will consolidate the findings from the study in a draft report for review by the Transportation Planning and Programming Committee.

Product of Task 5

Final report

ESTIMATED SCHEDULE

It is estimated that this project would be completed 22 weeks after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 1.

ESTIMATED COST

The total cost of this project is estimated to be $75,074. This includes the cost of 32 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 2.

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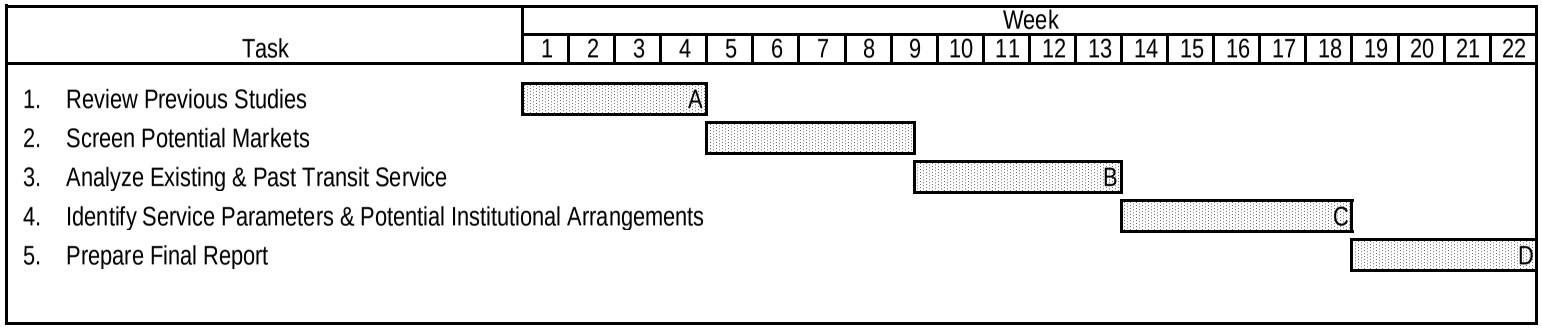
Exhibit 1
ESTIMATED SCHEDULE
Inner-Suburban Mobility Study



Products/Milestones

A: Technical memorandum no. 1
B: Technical memorandum no. 2
C: Technical memorandum no. 3
D: Final report

Exhibit 2
ESTIMATED COST
Inner-Suburban Mobility Study

Direct Salary and Overhead	$74,874

Task	M-1	P-5	P-4	P-3	P-1	Total	Direct Salary	Overhead (@ 88.99%)	Total Cost
1. Review Previous Studies	1.0	0.0	0.0	3.0	0.0	4.0	$4,724	$4,204	$8,928
2. Screen Potential Markets	0.5	2.5	0.5	3.3	0.0	6.8	$8,812	$7,842	$16,655
3. Analyze Existing & Past Transit Service	0.7	0.5	2.5	3.3	0.0	7.0	$8,389	$7,465	$15,855
4. Identify Service Parameters & Potential Institutional Arrangements	2.0	1.5	1.5	4.0	0.0	9.0	$11,613	$10,335	$21,948
5. Prepare Final Report	1.0	0.0	1.0	3.0	0.2	5.2	$6,079	$5,409	$11,488
Total	5.2	4.5	5.5	16.6	0.2	32.0	$39,618	$35,256	$74,874

Other Direct Costs	$200
Travel	$200

TOTAL COST	$75,074

Funding
EOT §5303 3C Transit Planning Contract #MA-80-0003