



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Stephanie Pollack, MassDOT Secretary and CEO and MPO Chair
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WORK PROGRAM

FREIGHT PLANNING SUPPORT: FEDERAL FISCAL YEAR 2019

DECEMBER 20, 2018

Proposed Motion

The Boston Region Metropolitan Planning Organization (MPO) votes to approve this work program.

Project Identification

Unified Planning Work Program (UPWP) Classification

Boston Region MPO Planning Studies and Technical Analyses

Project Number 2219

Client

Boston Region MPO

Project Supervisors

Principal: Mark Abbott

Manager: William S. Kuttner

Funding Source

MPO Planning Contract #101725

Schedule and Budget

Schedule: 9 months after work commences

Budget: \$56,370

Schedule and budget details are shown in Exhibits 1 and 2, respectively.

Relationship to MPO Goals

The Boston Region MPO elected to fund this study with its federally allocated metropolitan planning funds during federal fiscal year (FFY) 2019. The work completed through this study will address the following goal areas established in the MPO's Long-Range Transportation Plan: safety, capacity management and mobility, and economic vitality.

Background

Recognizing the importance of freight transportation and the unique challenges that comprehensive freight analysis entails, the Boston Region MPO established a freight-planning program in FFY 2014. The MPO anticipates that freight analysis within the framework of this multiyear program will be ongoing.

In FFY 2013, the MPO staff was directed to develop an “action plan” for this program that would further the MPO’s freight-planning goals. The action plan details the following goals:

- Fulfilling the Boston Region MPO’s freight-planning needs
- Complementing state and other regional freight-planning efforts
- Studying specific freight-related issues
- Expanding and improving available freight data to enhance the MPO’s technical capabilities and fulfill data-analysis requirements of federal surface transportation legislation

The action plan was presented in a memorandum from William Kuttner, MPO staff, to the Boston Region MPO, dated September 12, 2013, and titled “Proposed Freight Planning Action Plan for the Boston Region MPO: Meeting the Goals and Addressing the Issues.” The memorandum presented several ideas for potential studies that would address one or more of those goals and that were within the capabilities of MPO staff. These study options were far-reaching and were envisioned as ongoing, multiyear efforts. In FFY 2017, the Boston Region MPO’s freight program began addressing new topics beyond those specifically identified in the Action Plan.

The studies undertaken up to this time can generally be placed in two broad groups. There were broad-based studies of issues relevant to the entire MPO region, including some statewide studies with direct relevance to the MPO region. The other group of studies analyzed in detail specific areas within the MPO region that have freight and logistic importance.

Region-wide studies included an inventory in FFY 2017 of height and weight restrictions for bridges in the MPO region that affect truck travel. In addition, the results of a study conducted in FFY 2017 recommended the designation of a set of critical urban freight corridors in the MPO region. Statewide studies relevant to the MPO region included evaluating the adequacy of rest areas for truckers in FFY 2016, and an analysis of intermodal warehouses in Massachusetts in FFY 2018. Studies that focused on specific areas within the MPO region included a study of truck traffic in Everett and Chelsea in FFY 2015 and a study of trucks in the South Boston Waterfront in FFY 2016.

For FFY 2019, staff proposes to undertake a study focused on trucks in the Rutherford Avenue corridor, including the Massachusetts Port Authority's autoport, in the Charlestown neighborhood of Boston. This corridor is a section of one of the critical urban freight corridors designated by the MPO in 2017. It is adjacent to the Everett-Chelsea industrial area that was studied in 2015, which also includes roadways that are part of the aforementioned critical urban freight corridor, and connects with the Rutherford Avenue corridor.

Objectives

The principal objectives of this work program are as follows:

1. To coordinate MPO planning efforts with regional freight stakeholders
2. To study truck trip patterns in the Rutherford Avenue corridor and to develop findings relevant to current and anticipated planning efforts in or near this corridor
3. To continue developing region-wide freight-flow data for trucking and other modes, and configure these data for use in planning activities such as the congestion management process and development of the MPO's regional travel demand model

Work Description

Task 1 Coordinate MPO Efforts with Freight Stakeholders

MPO staff will maintain an ongoing, collaborative relationship with freight stakeholders affected by freight movement in the Boston Region MPO area including municipalities, shippers, carriers, and affected residents and businesses. Some of the activities will involve MPO staff attending and presenting at meetings and conferences, some of them sponsored by the MPO. Recruiting and encouraging regional freight stakeholders to be involved in activities of the MPO and its advisory committee will also be a valuable part of staff's outreach. Close coordination with the City of Boston will be a high priority, especially in support of the work in Task 2.

Task 2 Develop Rutherford Avenue Corridor Truck Travel Profile

A study area will be defined in consultation with local planning officials and other stakeholders. Estimates of daily truck traffic through this area of Charlestown, including the Massachusetts Port Authority's autoport, will be developed by truck type and travel path. Active truck trip generators will be identified and trip generation activity will be estimated by interviews or field observation.

This area has been and continues to be studied within a number of local and regional planning and design efforts. Truck traffic must be considered and accommodated within these studies, but it is seldom the planning focus. The

information developed in this task will serve as a resource for these broader planning efforts.

Products of Task 2

- Technical memorandum about truck flows in the study area
- Freight data for use in model development efforts

Task 3 Develop Additional Freight Data Sources

For many planning efforts, truck flows are assumed to be part of the general flow of traffic. For any planning or modeling effort requiring more detailed truck information, a special data-gathering effort is often necessary. With an expanded set of truck data and improved truck modeling capabilities, available truck data and model estimates can provide a valuable analytical starting point for developing the full complement of truck data required for a particular effort. This work program will explore possible new sources of truck data.

Truck volume data collection for model development is ongoing. Some truck volumes have already been developed from Massachusetts toll reports. Vehicle counting equipment is installed at numerous non-tolled locations on the limited-access highway system, and some of these locations have been set up to classify vehicles by size according to the standard Federal Highway Administration F-scheme. These data must be reviewed for reliability before being used for planning or truck model calibration.

Product of Task 3

Collection and preparation of truck data appropriate for model development from sources and locations outside the Rutherford Avenue study corridor

Task 4 Update Freight Planning Action Plan

Most of the topical studies suggested in the original Freight Action Plan have been completed. Data gathering and model improvement efforts are ongoing and recent topical studies are exploring new areas. Reviewing the freight planning context and possible future agenda of the MPO freight program is entirely appropriate at this time. The freight program will consider issues related to the MPO's Long-Range Transportation Plan, the State Freight Plan, and national transportation goals.

Product of Task 4

Technical memorandum reviewing recent freight program efforts and suggesting areas for future study and analysis

Exhibit 1
ESTIMATED SCHEDULE
Freight Planning Support: Federal Fiscal Year 2019

Task	Month								
	1	2	3	4	5	6	7	8	
1. Coordinate MPO Efforts with Freight Stakeholders									
2. Develop Rutherford Avenue Corridor Truck Travel Profile								A	
3. Develop Additional Freight Data Sources									
4. Update Freight Planning Action Plan							B		

Products/Milestones

- A: Technical Memorandum
- B: Technical Memorandum

Exhibit 2
ESTIMATED COST
Freight Planning Support: Federal Fiscal Year 2019

Direct Salary and Overhead							\$56,370	
Task	Person-Weeks				Direct Salary	Overhead (99.00%)	Total Cost	
	M-1	P-5	P-4	Total				
1. Coordinate MPO Efforts with Freight Stakeholders	0.0	1.0	0.0	1.0	\$1,965	\$1,946	\$3,911	
2. Develop Rutherford Avenue Corridor Truck Travel Profile	1.0	7.5	1.4	9.9	\$18,624	\$18,438	\$37,061	
3. Develop Additional Freight Data Sources	0.0	1.5	0.0	1.5	\$2,948	\$2,919	\$5,867	
4. Update Freight Planning Action Plan	1.0	1.5	0.0	2.5	\$4,789	\$4,742	\$9,531	
Total	2.0	11.5	1.4	14.9	\$28,327	\$28,043	\$56,370	
Other Direct Costs							\$0	
TOTAL COST							\$56,370	

Funding
MPO Planning Contract 101725