



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Stephanie Pollack, MassDOT Secretary and CEO and MPO Chairman
Karl H. Quackenbush, Executive Director, MPO Staff

MEMORANDUM

DATE June 4, 2015
TO Boston Region Metropolitan Planning Organization
FROM Karl H. Quackenbush
CTPS Executive Director
RE Work Program for: MassDOT Highway Division On-Call Modeling Support

Action Required

Review and approval

Proposed Motion

That the Boston Region Metropolitan Planning Organization, upon the recommendation of the Massachusetts Department of Transportation, vote to approve the work program for MassDOT Highway Division On-Call Modeling Support presented in this memorandum

Project Identification

Unified Planning Work Program Classification

Technical Support

CTPS Project Number

11153

Client

Massachusetts Department of Transportation Highway Division
Project Supervisors: Michael Bloukos, Michael O'Dowd

CTPS Project Supervisors

Principal: Scott Peterson
Managers: Bruce Kaplan, K. Grace King

Funding

New MassDOT Contract

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 any work in the UPWP.

Background

Over the past few years, the Massachusetts Department of Transportation (MassDOT) Highway Division has employed CTPS to provide travel demand modeling support and planning assistance for a number of its projects. Each of these projects has necessitated the creation of either a new contract or a contract amendment. In an effort to streamline the process, MassDOT's Highway Division decided to produce a contract for on-call work to engage the services of CTPS for three years, during which time CTPS will provide support for MassDOT projects.

Objective

The principal objective is to support MassDOT and its project teams in planning and modeling tasks that are associated with MassDOT's Highway Division.

Work Description

CTPS will assist MassDOT project work, chiefly in the areas of travel demand modeling and forecasting, over the next three years.

Task 1 Manage and Administer Modeling Support for MassDOT Projects

CTPS staff will work with MassDOT Highway Division staff to manage travel demand modeling and forecasting work to support MassDOT Highway Division studies at various project locations in eastern Massachusetts, in other areas, or statewide, as applicable. The MassDOT Highway Division will be responsible for coordinating with the Office of Transportation Planning when an assignment for CTPS is being prepared.

Products of Task 1

Modeling projects that are well managed and well administered

Task 2 Produce Modeling Products for MassDOT Projects

CTPS staff will provide modeling and forecasting support for MassDOT projects when requested to by the MassDOT Highway Division, and will assist them by producing requested products, which may include tables, maps, graphics, and reports. Air quality analyses, environmental justice analyses, transit peak-load analyses, volume-to-capacity-ratio analyses, and sensitivity testing of land use, transit service, and roadway improvements are among the types of technical work that may be performed in conjunction with the modeling efforts. The

forecasting work will help inform work-site construction mitigation strategies, project sequencing, and project design. Roadway volumes, transit boardings and alightings, and systemwide person- and vehicle-trips by mode by time of day are among the categories of data that will be examined and presented to the project teams.

Products of Task 2

Modeling work and products for MassDOT projects

Estimated Schedule

This contract will last for three years (12 quarters) after work commences. During that time, a CTPS chief planner will be able to devote approximately 72 percent of his or her work time to the desired projects, in addition to work performed by other CTPS staff. At any given time, no more than two full-time CTPS staff members may be directly engaged in modeling work under this contract. MPO work will always have priority over non-MPO work, such as the tasks covered by this contract.

Estimated Cost

The total cost of this project is estimated to be \$400,000. This includes the cost of 118.8 person-weeks of staff time and overhead at the rate of 91.82 percent. A detailed breakdown of estimated costs is presented in Exhibit 2.

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Exhibit 1
ESTIMATED SCHEDULE
MassDOT Highway Division On-Call Modeling Support

Task	Quarter											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Manage and Administer Modeling Support for MassDOT Projects												
2. Produce Modeling Products for MassDOT Projects												

Exhibit 2
ESTIMATED COST
MassDOT Highway Division On-Call Modeling Support

Direct Salary and Overhead	\$400,000
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Task	Person-Weeks			Direct Salary	Overhead (91.82%)	Total Cost
	M-1	P-5	Total			
1. Manage and Administer Modeling Support for MassDOT Projects	4.0	0.0	4.0	\$7,023	\$6,449	\$13,472
2. Produce Modeling Products for MassDOT Projects	2.0	112.8	114.8	\$201,506	\$185,022	\$386,528
Total	6.0	112.8	118.8	\$208,529	\$191,471	\$400,000

Other Direct Costs	\$0
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TOTAL COST	\$400,000
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Funding
 New MassDOT Contract