



## BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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

### *WORK PROGRAM*

## MASSDOT HIGHWAY DIVISION ON-CALL MODELING (2018)

APPROVAL DATE—JUNE 21, 2018

### Proposed Motion

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

### Project Identification

Unified Planning Work Program (UPWP) Classification

Agency and Other Client Transportation Planning Studies and Technical Analyses

Project Number 87101

#### Client

Massachusetts Department of Transportation (MassDOT) Highway Division

*Client Supervisors: Michael Bloukos, Michael O'Dowd*

#### Project Supervisors

*Principal: Scott Peterson*

*Manager: Ed Bromage*

#### Funding Source

New MassDOT Contract TBD

### Schedule and Budget

**Schedule:** This is a three-year contract, with individual task schedules to be determined at the time that the task is scoped.

**Budget:** \$400,000

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

### Relationship to MPO Work

This contract is supported in full with non-MPO funding. Committing MPO staff to the efforts financed with this contract will not impinge on the quality or timeliness of MPO-funded work. At any given time, no more than two full-time CTPS staff members may be directly engaged in modeling work under this contract. MPO projects will always have priority over other tasks and projects, such as those pursued under this contract.

## Background

The Massachusetts Department of Transportation (MassDOT) Highway Division has employed the Central Transportation Planning Staff (CTPS) in the past to provide travel demand modeling support and planning assistance for a number of its projects. Some examples of this work involve analyzing the effects of lane closures associated with construction on the Chelsea Viaduct, Sumner Tunnel, and the Commonwealth Avenue Bridge Reconstruction. New efforts will be funded from this one contract through task orders as a way of streamlining the process of having CTPS support time-sensitive roadway and bridge projects.

## Objective(s)

The objective is to support MassDOT and its project teams with travel demand modeling support and planning assistance for its roadway and bridge projects.

## Work Description

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

### **Task 1 Manage and Administer Modeling Support for MassDOT Projects**

CTPS will work with MassDOT Highway Division staff to manage the travel demand modeling and forecasting work to support MassDOT Highway Division studies at various project locations. MassDOT Highway Division will be responsible for coordinating with the Office of Transportation Planning when an assignment to 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 will provide modeling and forecasting support for MassDOT projects, 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 worksite 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 items that may be examined and presented. This work will be done within the budgets and schedules outlined in the individual task assignments.

*Products of Task 2*

Modeling work and products for MassDOT projects

**Exhibit 1**  
**ESTIMATED SCHEDULE**  
**MassDOT Highway Division On-Call Modeling (2018)**

Task	Quarter												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Manage and Administer Modeling Support for MassDOT Projects													
2. Produce Modeling Products for MassDOT Projects													

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**Exhibit 2**  
**ESTIMATED COST**  
**MassDOT Highway Division On-Call Modeling (2018)**

<b>Direct Salary and Overhead</b>							<b>\$400,000</b>
Task	Person-Weeks			Direct Salary	Overhead (105.66%)	Total Cost	
	M-1	P-5	Total				
1. Manage and Administer Modeling Support for MassDOT Projects	4.0	0.0	4.0	\$7,431	\$7,851	\$15,282	
2. Produce Modeling Products for MassDOT Projects	2.0	96.3	98.3	\$187,065	\$197,653	\$384,718	
Total	6.0	96.3	102.3	\$194,496	\$205,504	\$400,000	
<b>Other Direct Costs</b>							<b>\$0</b>
<b>TOTAL COST</b>							<b>\$400,000</b>

**Funding**

New MassDOT Contract TBD