



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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The Boston Region MPO is
composed of:

Massachusetts Department of
Transportation

Metropolitan Area Planning Council

Massachusetts Bay Transportation
Authority Advisory Board

Massachusetts Bay Transportation
Authority

Massachusetts Port Authority

Regional Transportation Advisory
Council

City of Boston

City of Beverly

City of Everett

City of Newton

City of Somerville

City of Woburn

Town of Arlington

Town of Bedford

Town of Braintree

Town of Framingham

Town of Lexington

Town of Medway

Town of Norwood

Federal Highway Administration
(nonvoting)

Federal Transit Administration
(nonvoting)

MEMORANDUM

DATE June 7, 2012
TO Boston Region Metropolitan Planning Organization
FROM Karl H. Quackenbush
CTPS Executive Director
RE Work Program for: Health Impacts of Lowering Speeds on Local
Roads

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Boston Region Metropolitan Planning Organization, upon the recommendation of the Metropolitan Area Planning Council, vote to approve the work program for the Health Impacts of Lowering Speeds on Local Roads, in the form of the draft dated June 7, 2012.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification

Technical Support/Operations Analysis Projects

CTPS Project Number

13255

Client

Metropolitan Area Planning Council

Project Supervisor: Mariana Arcaya, MAPC Public Health Manager

CTPS Project Supervisors

Principal: Karl H. Quackenbush

Manager: Bruce Kaplan

Funding

MAPC Interagency Funding Agreement

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

The Massachusetts Department of Public Health is interested in better understanding the implications of a policy proposal that has been discussed for several years to lower the default speed limit on “functionally classified local roads” from 30 mph to 25 mph.

In fact, several state legislators over the years have even proposed legislation to lower the speed limits. The aim is to reduce the posted vehicle speed on local neighborhood roads to a level that is safer for pedestrians, cyclists, and children.

The passage of this proposed legislation would have far-reaching and potentially important public health impacts. Lower default speed limits may do the following:

- Prevent fatalities and serious injuries to motorists, cyclists and pedestrians
- Promote active transportation by making local roads feel more hospitable to cyclists and pedestrians
- Change the composition of both near-roadway and regional pollutants, thereby potentially affecting cardiovascular and respiratory morbidity and mortality across the commonwealth.

The Metropolitan Area Planning Council (MAPC) is being funded by the Massachusetts Department of Public Health to undertake a Health Impact Assessment (HIA) of this conceptual policy change, with the assistance of CTPS, to examine these and other dimensions of health based on an initial scoping process. The final products will be data analysis and a summary of the potential health impacts that would inform public discourse on the proposed policy change.

OBJECTIVE

The objective of this project is to support MAPC’s HIA, which will examine the effect of lowering speeds on local roads in the commonwealth of Massachusetts on residents’ travel and health. The support consists of examining the reaction of traffic, transit, and nonmotorized modes to a lowering of local road speeds and the subsequent impacts these changes have on regional air quality and mode shares.

WORK DESCRIPTION

There are four tasks that will be used to support MAPC's HIA.

Task 1 Coordinate and Conduct Project Management

The project management task involves meeting with and coordinating with the client for the life of this project. The results of these meetings and coordination will include conversations and documents that will support all aspects of the project's progress.

Products of Task 1

Attendance at meetings and general coordination with the client as needed

Task 2 Develop and Analyze Existing Conditions

The 2011 existing conditions analysis will build on the modeling work undertaken for the recent MBTA Fare and Service Impact Analysis. Current transportation system conditions will be examined in detail to best understand present mode shares and vehicle emissions for each roadway type.

Products of Task 2

Summaries of current transportation demand by mode and mobile source emissions

Task 3 Test a Scenario with Lower Posted Speeds on Local Roads

Working with MAPC, CTPS will define the appropriate speeds for roadway types to be represented in the Boston Region MPO's regional travel demand model set. A scenario incorporating these speed changes will be used to test the proposed legislation. The results of this scenario will be examined at the same level of detail as in Task 2.

Products of Task 3

Summaries of transportation demand by mode and mobile source emissions

Task 4 Assist MAPC in Extrapolating Results for the Rest of the State

CTPS will assist MAPC in interpolating and extrapolating results of this analysis for all of Massachusetts. The statewide model will be consulted, along with inferred eastern Massachusetts travel patterns; focus will be placed on mobile source emissions.

Products of Task 4

Statewide estimates of traffic impacts and emissions due to changes in the posted speeds by functional class

ESTIMATED SCHEDULE

It is estimated that this project will be completed three months 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 \$8,000. This includes the cost of 2.8 person-weeks of staff time and overhead at the rate of 94.57 percent. A detailed breakdown of estimated costs is presented in Exhibit 2.

KQ/SAP/sap/bk

Exhibit 1
 ESTIMATED SCHEDULE
 Health Impacts of Lowering Speeds on Local Roads

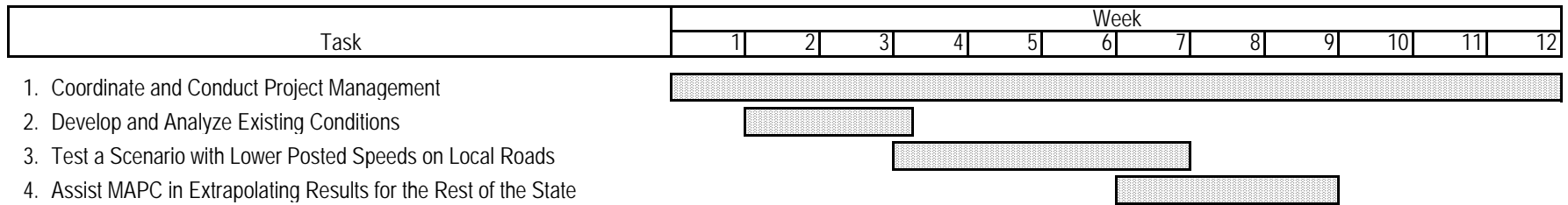


Exhibit 2
ESTIMATED COST
 Health Impacts of Lowering Speeds on Local Roads

Direct Salary and Overhead	\$8,000
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Task	Person-Weeks				Direct Salary	Overhead (@ 94.57%)	Total Cost
	M-1	P-5	P-3	Total			
1. Coordinate and Conduct Project Management	0.2	0.1	0.1	0.4	\$617	\$583	\$1,200
2. Develop and Analyze Existing Conditions	0.2	0.1	0.1	0.4	\$617	\$583	\$1,200
3. Test a Scenario with Lower Posted Speeds on Local Roads	0.2	0.9	0.3	1.4	\$2,056	\$1,944	\$4,000
4. Assist MAPC in Extrapolating Results for the Rest of the State	0.1	0.2	0.3	0.6	\$822	\$778	\$1,600
Total	0.7	1.3	0.9	2.8	\$4,112	\$3,888	\$8,000

Other Direct Costs	\$0
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TOTAL COST	\$8,000
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Funding
 MAPC Interagency Funding Agreement