

DRAFT Amendment Two - 2009 Element of the FFYs 2007 - 2010 TIP Comment Matrix

Public Comments

| Date | Affiliation/Name | Comment | MPO Action |
|-----------|---|---|------------|
| 2/13/2009 | Ned Flaherty | Suggests that the "Systemwide station upgrade program," which includes ventilation upgrade to Back Bay Station as part of the FY2009 element of the FY2007-2010 TIP adhere to the following recommendations: clarify the Back Bay Station ventilation upgrade cost increase, which rose from an estimated cost of \$700,000-\$2,500,000 to \$6,000,000 in 3 years; establish a before and after communication plan of Back Bay Station's air quality to avoid lawsuits; have the private real estate developer that will perform the project pay the past rent he negotiated for building a skyscraper over I-90 so that cost increases are covered. | |
| 2/12/2009 | Hanover Board of Selectman | Would like the Washington St. (Route 53) Hanover Phase IV project to be included as a project funded with American Recovery and Reinvestment Act (ARRA) funding and to be restored to the TIP. This project is the last of a series of projects providing important safety, access and traffic flow and congestion reduction improvements to the Route 53 corridor in Hanover. It has been deleted from the MPO's TIP, but this must be an administrative error. Asks the MPO to assure that MassHighway's review of the 25% package is uninterrupted. Mobilization Significant Infrastructure Investment (MSII) information sheet on the project is attached. | |
| 2/10/2009 | Donald F. DiMartino, Bellingham DPW Director | Expresses disappointment that the Pulaski Boulevard Project was not listed in the additions to the 2009 TIP Element, but hopes that it will be included in the FFY 2010 element of the FFYs 2010 - 2013 TIP. Provides updates on the current and expected progress of the Pulaski Project. Believes it can have the project ready for bid and construction by late summer 2009 in case projects in the recent amendment cannot meet the Shovel Ready requirement. | |
| 2/6/2009 | William N. Brownsberger, State Representative | Urges the Boston Region MPO to consider the Belmont Trapelo Road Corridor Project for the second wave of ARRA funding. Despite the use of reverse angle parking and "rain gardens" holding up the 25% design approval, the Town of Belmont is currently pressing forward on 75% design. The project is eligible for federal aid and could be advertised in the first half of calendar 2010. | |
| 2/1/2009 | E. Foote via email | Urges that Nonantum Road in Watertown, Newton, and Boston be given top priority. The road is not wide enough to accommodate its current four lanes and the short stretch has also been the site of numerous accidents, including 5 fatalities in the past 4 years. This road is essential for commuting and needs immediate attention. | |
| 2/1/2009 | Pat Brown via email | States that the MPO should defer programming design funds (as for the Assabet River Rail Trail and the Border to Boston Bikeway) until the construction funding can be programmed. Objects to the unacknowledged requirement to program this construction funding in the future. Asks why project 604874 (Danvers to Peabody border to Boston Bikeway) is not listed in the MassHighway PROJIS database. Also questions whether the Minuteman Bikeway appears to be segmented, receiving only \$3 million of its projected \$5.2 million total cost. Asks that the MPO educate the public about the allocation of ARRA funding. Expresses disappointment about the amount of new construction in the TIP when the Commonwealth's transportation infrastructure is in desperate need of maintenance. | |

Ned Flaherty

75 Clarendon Street, #508 • Boston, MA 02116-6051 • voice 617-574-8808 • e-mail Ned_Flaherty@msn.com

Chairman David Mohler

via courier 13 February 2009

Boston Region Metropolitan Planning Organization

Transportation Planning and Programming Committee

(voice: 617-973-7844, facsimile: 617-523-6454; e-mail: David.Mohler@eot.state.ma.us)

10 Park Plaza, #2150 • Boston, Massachusetts 02216-3978

RE: Comments on Transportation Improvement Plan, Draft Amendment #2

Dear Chairman Mohler:

This public comment is about Draft Amendment 2 (4 February 2009) of the 2009 element of the 2007-2010 Transportation Improvement Plan. My comments relate to one of the MBTA's federal economic stimulus projects on page 9: the \$34 million "Systemwide station upgrade program" which includes the Back Bay Station ventilation upgrade project.

1. Cost • From 2006-2008, the Back Bay Station ventilation upgrade was estimated to cost \$700,000 - \$2,500,000. The unexplained increase from \$700,000 only 3 years ago to \$6,000,000 today suggests that there may be a clerical error, a misunderstanding, or an inappropriate merging of multiple projects. The true cost should be verified.

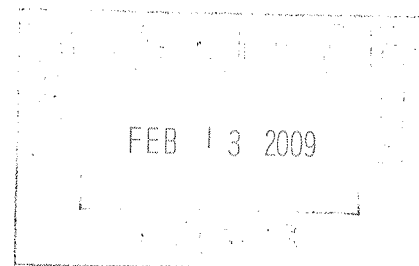
2. Notifying Employees & Travelers • The project would eliminate toxic air that has been plaguing the station's MBTA staff, Amtrak staff, vendor staff, and travelers for 23 years. MBTA has known about this since 1992. The air is not merely unpleasant; exposure to it has been proven to increase the rates of birth defects, incurable illnesses, and premature death. Regardless of how and when this problem is resolved, a before-during-and-after communication plan is necessary. It's true that highlighting this problem could precipitate a lawsuit, but it's also true that not highlighting it could lead to even worse lawsuits.

3. State Reimbursement • The Back Bay Station ventilation upgrade project is currently slated to be paid for and performed by a private real estate developer, as part of the state's rent charged to that developer for building a skyscraper complex over the I-90 transportation corridor. Whatever costs would have been paid by the private developer as rent now should be collected from that developer in cash, regardless of the timetable for the skyscraper project. There are two reasons: (1) that will provide extra cash in case the upgrade costs increase; and (2) just because the upgrade will now be done by MBTA is no reason that the state should forego rental income that it was promised long ago.

Sincerely,



Ned Flaherty





TOWN OF HANOVER
550 HANOVER STREET, SUITE 29
HANOVER, MASSACHUSETTS 02339
(781) 826-2261 (781) 826-5010

Board of Selectmen

February 12, 2009

Frank A. Tramontozzi, P.E.
Chief Engineer
MassHighway
10 Park Plaza
Boston, Massachusetts 02116

Dear Mr. Tramontozzi:

We have prepared this letter to present to you a matter of the utmost urgency to our community. As you know, the Town of Hanover and the Route 53 Regional Corridor Study Committee have been diligently and methodically advancing transportation improvement projects on various sections of Washington Street Route 53 in our town. This arterial serves as the principal gateway to our vibrant commercial corridor, and in partnership with MassHighway and business community, we have effected numerous construction projects that have addressed and/or corrected serious transportation and safety deficiencies that had previously caused serious congestion and numerous accidents.

It has come to our attention that the section of the Route 53 project entitled "Washington Street (Route 53) Phase IV Transportation Improvement Project" has been deleted from the Commonwealth of Massachusetts Transportation Improvement Program list. MassHighway's project reference number for this project is PROGIS 602602. Given the importance of this project to our community and the region, we can only assume that the deletion of this project is simply an administrative error.

The Washington Street (State Highway Route 53) Hanover -Transportation Improvement Project consists of improvements to approximately 2300 feet of Washington Street (Route 53) from Route 3 to Webster Street. The proposed project includes the following major components:

- Widening the Washington Street (Route 53) roadway cross section to provide one lane in each direction plus a two-way continuous center left turn lane, shoulders to accommodate bicyclists and a sidewalk along one side.
- The total width of the proposed pavement is 52ft. This includes one-12 ft lanes and 7ft shoulder in each direction plus a 14 ft two-way continuous center left turn lane. This section will allow the state and community to expand this section of highway to a four lane section at a point in the future when volumes warrant the additional lanes.

- This is the final phase of the Route 53 Four Phase Transportation Improvement Program presented in the Route 53 Regional Corridor Study. The following Sections have been completed to date:
 - Washington Street (Route 53): Route 3 to Mill Street (completed in 1991)
 - Washington Street (Route 53): Route 123 to 2000 ft north of Assinippi Avenue. (completed in 2005)
 - Washington Street (Route 53): Mill Street to Pond Road/Old Washington Street Intersection (under construction: Completion date Spring, 2010)
 - Washington Street (Route 53) over Route 3: Includes the widening of Washington Street through the interchange, reconstruction of Bridge No. H-06-011 and signalization of the northbound ramp/Washington Street intersection.

A principal objective of this project is to improve mobility both within and through the limits of the project area. The Route 53 Corridor committee, in recognizing the importance of the Route 53 corridor as: 1) a major regional commuter route; 2) a major multi-community commercial access road and; 3) a key by-pass road for Route 3 reconstruction, has established this section of Route 53 as the critical link requiring large scale transportation improvements. Widening to a three lane section, including a two-way continuous center left turn lane will improve access to adjacent commercial sites; thereby vastly improving corridor traffic progression and safety.

The proposed project is consistent with the Statewide Road Policy. The project will provide a community-friendly solution to an existing congestion and safety problem within an existing commercial/industrial corridor. The project has been designed in collaboration with the affected communities and will fully protect and enhance the surrounding communities and landscape while addressing mobility and safety for all modes of transportation.

Originally, the project limits for the Phase IV section described above began at the northbound ramps and included both the segment of highway to Route 123 and the signalization of the Route 3 northbound ramp terminus at Route 53. Recently, the Town of Hanover and MassHighway agreed to remove the traffic signal component from the Phase IV project and add this work to the Bridge Replacement project for Bridge No. H-06-011 over Route 3. It was our understanding at the time that the signal work would run with the Bridge project Progis number and that improvements for the balance of the corridor would remain with Progis No. 602602. Please be advised that the remaining section of the original project has been advanced to the 25% phase of design development and is currently in the design

review process with MassHighway. Furthermore, given the advanced level of design development, we were encouraged to include Phase IV as a candidate in the upcoming Federal/State Stimulus Program. The application was completed and submitted to the Office of the Lt. Governor on January 8, 2009.

Recognizing that Stimulus Program dollars can only be issued to projects that have a Projis number, we would be very disappointed to lose the opportunity to construct Phase IV under the proposed accelerated program due to an administrative faux pas. We respectfully request, therefore, that the Projis number be reinstated for the "Washington Street (Route 53) Phase IV Transportation Improvement Project" to assure that the MassHighway review of the 25% package is uninterrupted and that the opportunity for the construction phase to be included in the upcoming stimulus package is not lost. We hope to hear from you regarding this matter at your earliest convenience and are available at a moments notice to meet with you to assist in rectifying this oversight.

Very truly yours,



Daniel A. Pallotta, Chairman
Hanover Board of Selectmen



R. Alan Rugman
Selectman



David C. Greene
Selectman

cc: Bernard McCourt, MHD District 5,
David Mohler, MHD Boston,
Robert Nyman, State Representative
Tom Kennedy, State Senator;
Joseph Magni, VHB

Commonwealth of Massachusetts
Mobilization for Significant Infrastructure Investment

DEADLINE JANUARY 8th at 2:00p.m.

Projects that will be shovel-ready within 180 days and completed within 2 years

Municipality: **Hanover**
Contact person: **Stephen Rollins, Town Administrator**
Phone number: **781-826-2261**
Email address: **selectmen@hanovermass.com**

Project Title:
Washington Street (State Highway Route 53) Hanover -Transportation Improvement Project – Phase IV: Limits The Route 53 –Phase IV project begins 300 south of the Webster Street intersection and extends south approximately 2300 linear feet to a location 300 feet north of the intersection of the Route 3 northbound ramp terminus.

Project Description

Washington Street (State Highway Route 53) Hanover -Transportation Improvement Project consists of improvements to approximately 2300 feet of Washington Street (Route 53) from Route 3 to Webster Street. The proposed project includes the following major components:

- **Widening the Washington Street (Route 53) roadway cross section to provide one lane in each direction plus a two-way continuous center left turn lane, shoulders to accommodate bicyclists and a sidewalk along one side.**

The total width of the proposed pavement is 52ft. This includes two-12 ft lanes, one 14 ft two-way continuous center left turn lane, and one 7ft shoulder in each direction.

This section will allow the state and community to expand this section of highway to a four lane section at a point in the future when volumes warrant the additional lanes.

This is the final phase of the Route 53 four phase Transportation Improvement Program presented in the Route 53 Regional Corridor Study. The following Sections have been completed to date:

- **Washington Street (Route 53): Route 3 to Mill Street (completed in 1991)**
- **Washington Street (Route 53): Route 123 to 2000 ft north of Assinippi Avenue. (completed in 2005)**
- **Washington Street (Route 53): Mill Street to Pond Road/Old Washington Street Intersection (under construction: Completion date Spring, 2010)**
- **Washington Street (Route 53) over Route 3: Includes the widening of Washington Street through the interchange, reconstruction of Bridge No H-06-011 and signalization of the northbound ramp/Washington Street intersection.**

Principal objective of this project is to improve mobility both within and through the limits of project area. The Route 53 Corridor committee, in recognizing the importance of the Route Corridor as 1) a major regional commuter route 2) a major multi-community commercial

ccess road and 3) a key by-pass road for Route 3 reconstruction, has established this section of route 53 as the critical link requiring large scale transportation improvements. Widening to a three lane section and inclusion of a two-way continuous center left turn lane will improve access to adjacent commercial sites; thereby will vastly improving corridor traffic progression and safety.

The proposed project is consistent with the Statewide Road Policy. The project will provide a Community-Friendly Solution to an existing congestion and safety problem within an existing commercial/industrial corridor. The project has been designed in collaboration with the affected communities and will fully protect and enhance the surrounding communities and landscape while addressing mobility and safety for all transportation modes.

The project has been approved by MassHighway Project Review Committee and has a PROJIS Number 2602; however, this project has not yet been funded as it remains on the supplementary list.

Please note in the description whether or not this project is being considered for state or federal funds outside the potential federal stimulus. If so, please provide the program or agency you've applied to.

est

\$300,000

Is the requested federal funding be leveraged with any other public or private funding? If yes, please explain: Funding includes \$75,000 contributed by the town for planning and design services.

Project Schedule

Expected start date: **Spring, 2010**

Expected date of completion: **Summer, 2011**

Has the project been 100% designed? **This project was submitted in June 2006, for State review and comment, at a 25% design level.**

When will design be complete? **As a practical matter, design is complete and is only awaiting formal review by various State agencies.**

Has the municipality authorized the funding for the project? **Yes**

Is the project fully permitted? **No: an ENF and a State Highway Access Permit is required.**

When will it be fully permitted? **Permitting will be complete by the end of 2009**

Is the project intended as a design/build or is it sufficiently permitted to allow work to start? **No**

Has the project gone out to bid? **No**

When do you anticipate the project going out to bid? **Second Quarter-YR 2010**

Has a contract been awarded to begin work? **No**

When will you award? **Second Quarter-YR 2010**

Economic Impact

How many jobs will be produced with this project? Please specify construction jobs as well as permanent jobs.

The Washington Street Transportation Improvement Project is anticipated to be completed in 1 construction season. It is anticipated that there will be 100 temporary jobs created during this period.

Upon its completion, it is anticipated that there will be an increase in retail jobs as a result of the removal of congestion and the return of consumers currently reluctant to maneuver the road with the congestion resulting from its current difficult configuration.

This project also has regional impacts. Access by the surrounding Towns of Norwell, Rockland, Pembroke, Marshfield and Hanson, all of which use a large portion this stretch of Route 53 to

approach the Hanover Mall and other shopping plazas along Route 53, would be greatly improved. With the removal of this long standing bottleneck, and completion of the related projects of the installation of traffic lights and bridge repairs currently underway, traffic flow will improve and volume is anticipated to increase on this stretch of Route 53 which has been deteriorating significantly over the past decades.

Will your municipality be able to fully fund the operations of the new or updated facility with local government operating funds? **Washington Street (Route 53) is state owned and maintained.**

Additional Information

If your project is energy efficiency or clean energy oriented, please see page 3 and the excel spreadsheet attached to the request e-mail.

If your project is transportation oriented, please respond to the following questions:

Note – For roadway projects, respondents may wish to consult Chapter 2 of the MassHighway Project Development and Design Guidebook at http://www.mhd.state.ma.us/downloads/designGuide/CH_2_a.pdf before completing this section.

Project type: (check all that apply) transit, roadway resurfacing, roadway construction, streetscape improvements/sidewalks, multiuse path construction, bridge maintenance, bridge rehabilitation, bridge replacement, safety improvements, traffic signalization

Functional class of roadway, if applicable: Rural Major Collector

Location of project: (Route and/or Street name(s))

Washington Street (Route 53) –Phase 4B project begins 300 south of the Webster Street intersection and extends south approximately 2300 linear feet to a location 300 feet north of the intersection of the Route 3 northbound ramp terminus.

If applicable, has the proposed project been approved by MassHighway's Project Review Committee (PRC)?
Yes, No If yes, assigned MHD project tracking.

Project design status, pre-25%, 25%, 75%, 100%

Has a public hearing been conducted to explain the project and gather comments/feedback? yes, no
If yes, please provide date of last public hearing; **A public informational hearing was held at Hanover Town on April 1, 2003.**

Is the proposed project included within the regional MPO Transportation Improvement Program (TIP)?
Yes, no, uncertain **PROJIS # 602602**

Is the project being designed to MHD design standards? yes, no, uncertain

What is the anticipated Right-of Way work involved: none, temporary easements, permanent takings,

Is the environmental permitting process underway? Yes, No, substantially complete

What MEPA documentation required for the project:

- Environmental Notification Form ENF
- Environmental Impact Report EIR

None

Anticipated NEPA documentation required for the project:

Categorical Exclusion CE

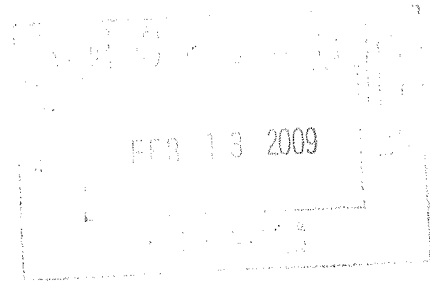
Environmental Assessment EA

Environmental Impact Study EIS

None

TOWN OF BELLINGHAM

OFFICE OF THE
DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS
26 BLACKSTONE STREET
BELLINGHAM, MA 02019
(508)-966-5813
FAX (508)-966-5814
ddimartino@bellinghamma.org



February 10, 2009

Mr. David Mohler, Chair
Transportation Planning and Programming Committee
Boston Region Metropolitan Planning Organization
State Transportation Building
10 Park Plaza, Suite 2150
Boston, MA 02128

RE: TIP Amendments (2009-2012) Economic Stimulus
• **Pulaski Boulevard Project (PROJIS #602493)**

Dear Mr. Mohler:

I received an email from Ms. Morrison last week about the pending amendments driven by the proposed injection of funds under Federal Economic Stimulus Plan. I was disappointed to see that the Pulaski Project was not listed in the additions to the 2009 Element, but understand the huge list of projects you have prioritize and insure are "Shovel Ready" in 180 days.

I want to update you on the status of the Pulaski Project and express my hope that at a minimum the project will appear on the 2010-2013 TIP in the 2010 Element.

We have continued to make a conscientious effort to get this project READY.

We met with Mr. Gentile to discuss the procedure for completion our right of way compliance. We have an article on the May 27th Town Meeting warrant to authorize the acquisition of the temporary construction easement, and expect to have the order of taking filed before July 1, 2009. It appears we have all other right of way issues under control and should be able to obtain or compliance approval before the end of July.

We flagged all trees slated for removal, advertised, and the Tree Warden held hearing to discuss tree removal and plantings on November 24, 2008. Tree Warden Michael Burr approved the tree removal and plantings proposed. No private citizens attended the hearing; indicating again that there is no resistance to the project.

BETA Group, Inc. submitted 100% design to MassHighway in December 2009. BETA also this week updated the MEPA documents needed to file the ENF, at the request of MassHighway.

We believe we can have the Pulaski Project READY by late summer 2009 for bid and construction. The Town of Bellingham will make every effort to make this project ready.

Please keep this project in mind in case any projects proposed in the recent amendment fall behind and cannot meet the Shovel Ready requirement.

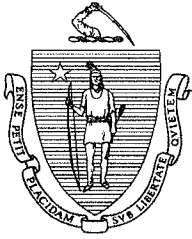
Again, our thanks to you and the committee for considering the Pulaski Project and for all you do. We place our faith and trust in you and the committee; the schedule for the Pulaski Project is in your hands.

Sincerely,



Donald F. DiMartino,
DPW Director

cc: (via email)
Bellingham Board of Selectmen
Representative Jennifer Callahan
Senator Richard T. Moore
Arthur Frost, MassHighway District 3
William Chi, MHD Project Manager
Darshan Jhaveri, BETA Group, Inc.



The Commonwealth of Massachusetts

HOUSE OF REPRESENTATIVES
STATE HOUSE, BOSTON 02133-1054

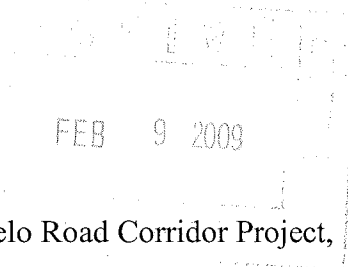
WILLIAM N. BROWNSBERGER
REPRESENTATIVE
24TH MIDDLESEX DISTRICT
ROOM 23, STATE HOUSE

Committees:
Environment, Natural Resources and Agriculture
Mental Health and Substance Abuse
State Administration and Regulatory Oversight

TEL: (617) 722-2140
CELL: (617) 771-8274
E-Mail: Rep.WilliamBrownsberger@hou.state.ma.us

February 6, 2009

David J. Mohler, Chair
Transportation Planning and Programming Committee
Boston Region MPO
State Transportation Building
10 Park Plaza, Suite 2150
Boston, MA 02116



Re: Second Wave Stimulus Funds use for Belmont Trapelo Road Corridor Project,
Project ID 604688

Dear Mr. Mohler,

I'm writing to ask that the Belmont Trapelo Road Corridor Project be considered for the second wave of federal stimulus funds. I understand that this wave is likely to be allocated for projects ready to advertise by August 1, 2010.

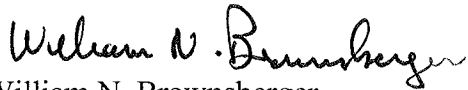
The Belmont/Trapelo project had its 25% design hearing in July 2008. I understand that consideration of two very optional innovations in the design is all that is presently holding up final approval of the 25% design (the use of some reverse angle parking in one square and the use of "rain gardens" in selected locations – a new type of drainage structure to enhance the irrigation of the tree lawn along the road).

The town is already pressing forward on 75% design and with the support of MassHighway, the project could be advertised in the first half of calendar 2010.

I understand from Ms. Hayes Morrison that the project is eligible for federal aid. It was among the projects submitted to the Lieutenant Governor's task force for preparation for the federal stimulus spending.

As always, I appreciate your consideration and we look forward to working with you to answer any questions regarding this request.

Sincerely,

A handwritten signature in cursive script that reads "William N. Brownsberger".

William N. Brownsberger
State Representative (617-771-8274)

Cc: Belmont Officials
Ms. Hayes Morrison

> eMail: evfoote@rcn.com
>
> subjectText: Nonantum Road, Watertown, Newton, Boston
>
> messageText: Nonantum Road in Watertown, Newton and Boston needs top
> priority. The stretch of road is not wide enough to be painted for its
> current 4 lanes. The short stretch has been the site of 5 fatalities in
> the past 4 years, and many other serious accidents involving personal
> injury. Because of the seriousness of the accidents-- loss of life and
> serious bodily harm--this area needs immediate attention. It also is a
> frustrating example of poor government, as the hazardous conditions have
> existed for a decade or more and nothing has been done. Reasonable
> drivers --not just crazy ones--are at great risk of serious injury. This
> roadway is essential for commuting from Newton, Watertown, Waltham,
> Wellsely, etc. into Boston or Cambridge. Please give this top priority.
> E. Foote
>
> submitForm: Submit

> Dear Mr. Mohler,
>
> I have several comments on the proposed 2009 TIP element.
>
> I am concerned that the HPP (High Priority Projects) section contains
> design money for both the Assabet River Rail Trail (two entries) and the
> Border to Boston Bikeway. While I appreciate the efforts of our state
> representatives to fund projects enthusiastically supported by vocal
> constituencies, I object to the unacknowledged requirement to allocate
> construction funding from the MPO for these projects in the future so that
> we can accept the design money now. This gives the impression that the
> priorities determined by the MPO are arbitrary, and that the way to
> advance a project is to go around the MPO process altogether. The MPO
> should incorporate the implied construction costs of any project receiving
> HPP design funds, and defer accepting the design funds until the
> construction funding can be programmed in the TIP or until Congress
> allocates HPP funding for construction as well as design.
>
> The Danvers to Peabody [604874] Border to Boston Bikeway (HPP 843)
> entry
> on page 4 implies there is a 604874 project in the Mass Highway PROJIS
> database; this project is not listed in the on-line version. Is this an
> oversight?
>
> I also observed \$3 million in stimulus funding allocated for the
> Minuteman
> Bikeway on page 2. Is this a reference to PROJIS 600811, which is listed
> at \$5.2 million? The entire project there is listed at 100% design--why
> has the project been segmented here?
>
> I was surprised to see that \$113,109,550 was available to the MPO in
> Highway stimulus funding, and \$198,700,000 allocated to the MBTA in
> Transit stimulus funding. My impression from the news outlets is that
> highways are receiving the greater share of the funds, and that transit
> needs are not being addressed. The MPO should educate the public on the
> actual funding allocation.
>
> Finally, I was extremely disappointed to see the amount of new
> construction programmed in the TIP. The Commonwealth's transportation
> infrastructure stands in desperate and widely acknowledged need of
> maintenance. I would like to see the MPO's spending priorities reflect
> that fact.
>
> Thank you for your willingness to accept public input on these
> matters.
>
> Pat Brown



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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Ten Park Plaza, Suite 2150
Boston, MA 02116-3968
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TTY (617) 973-7089
www.bostonmpo.org

James A. Aloisi, Jr.
Secretary of Transportation
and MPO Chairman

Arnold J. Soolman
Director, MPO Staff

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 Salem

City of Somerville

Town of Bedford

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 February 26, 2009
TO Transportation Planning and Programming Committee
of the Boston Region Metropolitan Planning Organization
FROM Arnold J. Soolman, CTPS Director
RE Work Program for: MBTA Transit Quality Assurance Benchmarking,

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization, upon the recommendation of the Massachusetts Bay Transportation Authority, vote to approve the work program for MBTA Transit Quality Assurance Benchmarking in the form of the draft dated February 26, 2009.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification

Planning Studies

CTPS Project Number

11361

Client

Massachusetts Bay Transportation Authority
Project Supervisor: Joe Cosgrove

CTPS Project Supervisors

Principal and Manager: Elizabeth M. Moore

Funding

MBTA \$5303 Transit Planning Contract #X94PS26

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

Every three years, the Massachusetts Bay Transportation Authority (MBTA) is required to submit reports to the Federal Transit Administration (FTA) Office of Civil Rights detailing the MBTA's efforts to comply with Title VI of the Civil Rights Act of 1964. In addition, the FTA has at times required the MBTA to provide quarterly reports to more closely track specific elements of Title VI compliance.

Title VI Reports assess the comparative levels and quality of service on the public transportation network for minority and/or low-income neighborhoods as compared to other neighborhoods. The definitions of minority and low-income, as well as the requirements for demonstrating compliance with Title VI, are outlined in FTA Circular 4702.1A.

The most recent triennial Title VI Report was provided by the MBTA to the FTA in 2008. In this report, the MBTA outlined an ongoing process of Title VI data collection and analysis; documented the results of current assessments of compliance; and indicated responsive action that would be taken with respect to Title VI concerns in the interim years before the 2011 report. In addition, the MBTA continues to report quarterly to the FTA on the performance of the Silver Line Washington Street BRT service.

CTPS has performed data collection and analysis for MBTA Title VI reporting, including the 2005 and 2008 triennial reports to FTA, annual internal reports for ongoing monitoring, and quarterly reporting as required. The present project encompasses the continuation of the monitoring effort. Data collected and reporting completed in FFY 2009 will be incorporated into an annual report to the MBTA or will be included in any quarterly reporting required by FTA.

OBJECTIVES

CTPS will assist the MBTA in data collection, will conduct assessments of service performance throughout the system, and will report the results to the MBTA. Comparisons of performance in minority and/or low-income communities with performance in communities that are not minority and/or low-income will be conducted according to guidelines provided in FTA Circular 4702.1A. These guidelines include definitions of minority and low-income and identify service characteristics—or service indicators—for which the performance comparisons must be made.

The MBTA has established an internal schedule that includes annual monitoring for some service indicators and biennial or triennial monitoring for others. Annual and biennial results are reported to the MBTA for internal monitoring so that any problems can be addressed early. Every three years, the most recent annual and biennial monitoring results are compiled into the required triennial Title VI report to the FTA.

This FFY 2009 scope will meet the following objectives for required annual and quarterly reporting to the MBTA.

1. For those service indicators that the MBTA monitors annually, provide summary statistics on the levels of service provided to predominantly minority and/or low-income areas as compared to the levels of service provided to other areas.
2. Assemble the results of the new level-of-service analyses into a report to the MBTA.
3. On a quarterly basis, for the remainder of FFY 2009, collect and analyze data on Silver Line Washington Street and report results to MBTA.

WORK DESCRIPTION

For level-of-service monitoring, the Title VI Circular identifies a number of service indicators for which the comparative analysis must be completed. The MBTA monitors most (but not all) of the level-of-service indicators annually, including the distribution of transit amenities, vehicle assignment, and passenger security inspections by transit security personnel.

Most of the level-of-service analyses rely on up-to-date data coverages of MBTA transit routes and amenities in the geographic information system (GIS) database maintained by CTPS. These coverages allow CTPS to designate amenities as being located in, and routes as serving, predominantly minority and/or low-income areas.

Task 1 Level-of-Service Monitoring

The first step in the level-of-service monitoring is to assess the performance of services against established service standards and policies for specified service indicators and then to compare the performance of the services provided for predominantly minority and/or low-income areas with the performance of services provided for other areas. The service indicators for which CTPS will collect and/or analyze data, and the actions that will be taken by CTPS, are described below.

- **Distribution of Transit Amenities:** The amenities for which the MBTA completes annual monitoring include: the location and condition of bus shelters, as well as the benches, timetables, and route maps that are provided in the shelters; the distribution of neighborhood maps, trash receptacles, and variable message signs at stations; the distribution and operability of AFC fare gates, fare vending

machines, and retail sales terminals; the distribution and operability of station elevators and escalators; and the distribution and utilization of station parking. Monitoring data for the bus shelters and related amenities is collected by CTPS through field observations. Data on all other amenities are provided to CTPS by the MBTA. For each amenity, the analysis will be completed to compare the location, condition, and/or operability of those found in predominantly minority and/or low-income areas or stations to amenities in other areas or stations.

- **Vehicle Assignment:** For bus vehicle assignment, CTPS will obtain and analyze Bus Operations garage pullout and maintenance records for at least one sample hot day during the summer. With these data, CTPS will analyze the functionality of air conditioning and the vehicle age for buses on routes that serve predominantly minority and/or low-income areas compared to buses on routes that serve other areas. The same type of vehicle assignment analyses will be completed for rapid transit and commuter rail using data collected through CTPS field observations and/or provided by the MBTA.
- **Transit Security:** Using data provided by the MBTA, CTPS will compare the percentage of passenger inspections at transit stations in minority and/or low-income areas with the percentage at stations in other areas throughout the system.

Products of Task 1

- Level-of-service summaries showing the distribution of transit amenities and passenger security inspections in predominantly minority and/or low-income areas and in other areas.
- Level-of-service summaries by route for vehicle assignment (based on vehicle age and air conditioning), with an indication of which routes serve predominantly minority and/or low-income areas.

Task 2 Prepare Internal Report to MBTA

CTPS will compile the results of the level-of-service analyses into a FFY 2009 report to the MBTA. This report will provide the data needed for the MBTA to determine whether any corrective actions need to be taken to ensure that services in minority and/or low-income areas are comparable to those in other areas.

Product of Task 2

FFY 2009 Report to MBTA.

Task 3 Ongoing Monitoring of Silver Line Washington Street

The FTA requires that the MBTA provide ongoing quarterly reports of loading and on-time performance of the Silver Line Washington Street. Under previous Title VI work scopes, CTPS has collected and reported data for Silver Line Washington Street since the beginning of 2006. CTPS staff will continue to perform quarterly pointchecks on a

typical weekday at the peak load point to determine passenger loading and provide tabular summaries of these observations. The observed headway between vehicles will also be recorded, and provided to MBTA Service Planning for incorporation with automated vehicle location data.

Product of Task 3

Quarterly tabular summaries of Silver Line Washington Street pointcheck observations, and updates to the quarterly written report to FTA indicating whether any changes have occurred in passenger loading since the previous report.

Task 4 Provide Technical Support to the MBTA Title VI Working Group

The MBTA's Title VI Working Group meets periodically to address Title VI issues. CTPS staff will continue to participate as a member of the working group and will provide technical assistance to the group as necessary.

ESTIMATED SCHEDULE

It is estimated that this project would be completed seven 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 \$47,900. This includes the cost of 23.6 person-weeks of staff time, overhead at the rate of 86.97 percent, and travel. A detailed breakdown of estimated costs is presented in Exhibit 2.

AJS/EMM/emm

Exhibit 1
 ESTIMATED SCHEDULE
 MBTA Transit Quality Assurance Benchmarking

| Task | Month | | | | | | |
|--------------------------------|-------|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Level-of-Service Monitoring | A | | | | | | |
| 2. Internal Report to MBTA | | | | | | B | |
| 3. Silver Line Monitoring | C | | | C | | | C |
| 4. Support to Working Group | A | | | | | | |

Products/Milestones

- A: Level-of-Service Summaries
- B: Annual Report to MBTA on Level-of-Service Monitoring
- C: Quarterly Reports for Silver Line Washington Street Monitoring

Exhibit 2
 ESTIMATED COST
 MBTA Transit Quality Assurance Benchmarking

| | |
|-----------------------------------|-----------------|
| Direct Salary and Overhead | \$47,791 |
|-----------------------------------|-----------------|

| Task | Person-Weeks | | | | | | | | | | Direct Salary | Overhead (@ 86.97%) | Total Cost |
|--------------------------------|--------------|-----|-----|-----|-----|-----|------|------|------|-------|---------------|---------------------|------------|
| | M-1 | P-5 | P-4 | P-3 | P-2 | P-1 | SP-3 | SP-1 | Temp | Total | | | |
| 1. Level-of-Service Monitoring | 1.0 | 1.0 | 2.0 | 4.0 | 0.0 | 0.0 | 3.3 | 2.5 | 1.0 | 14.8 | \$14,422 | \$12,543 | \$26,966 |
| 2. Internal Report to MBTA | 1.2 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | \$4,214 | \$3,665 | \$7,878 |
| 3. Silver Line Monitoring | 0.5 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 3.6 | \$3,692 | \$3,211 | \$6,903 |
| 4. Support to Working Group | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | \$3,233 | \$2,811 | \$6,044 |
| Total | 3.7 | 2.0 | 4.0 | 5.0 | 0.0 | 0.0 | 5.4 | 2.5 | 1.0 | 23.6 | \$25,561 | \$22,230 | \$47,791 |

| | |
|---------------------------|--------------|
| Other Direct Costs | \$109 |
|---------------------------|--------------|

| | |
|--------|-------|
| Travel | \$109 |
|--------|-------|

| | |
|-------------------|-----------------|
| TOTAL COST | \$47,900 |
|-------------------|-----------------|

Funding
 MBTA \$5303 Transit Planning Contract #X94PS26

JOURNEY to 2030 Projects List
Evaluation Criteria Rating

DRAFT

| Page in Universe of Projects and Programs Binder | Community | Project | Mobility | | | | | | | | | | | | | Safety & Security | | | | Preservation | Environment | | Regional Equity | | Land Use & Economic Development | | | | Revised Current Cost | Project Info. | | Notes | | | | | | | |
|--|-----------|---------|---|--|---|--|--|-----------------------------------|-------------------------------------|---------------------------------------|---------------------------------|-------------------------|--------------------------------|----------------------------------|--------------------------------------|---------------------------|----------------|-------------------------------|--------------|--|--|---|-----------------|---------------------------|---------------------------------|----------------------|--|--------------------------------------|----------------------|------------------------------------|--------------------|----------------|-------------------------------------|----------------------------------|------------------------------------|--|----------------|--|--|
| | | | MMS Data | | | | | | MMS Data | | | | | | | MMS Data | | MMS Data | | | MMS Data | | | | Current Status of Project | Type of Project | | | | | | | | | | | | | |
| | | | Average Daily Traffic Entering Interchange ¹ | Peak Hour Speed Index - Range ² | Average Peak Hour Speed Index in Peak Direction | Average Delay Per Mile - AM/PM (Seconds of Delay per Mile) | Average AM/PM Delay at Intersection (Seconds of Delay) | Volume/Practical Capacity - Range | Volume/Practical Capacity - Average | Improves Connections/Access to System | Improves Public Transit Service | Expands System Capacity | Provides Bike & Ped Facilities | Addresses Suburban Transit Needs | Better Access for Target Populations | Improves Freight Mobility | Overall Rating | Crashes Per Year ³ | Crashes/Mile | Crash Rate Per Million Vehicles ⁴ | Enhances Safety of Infrastructure for Users ⁵ | Component of Safety/Security Initiative | Overall Rating | Preserves Existing System | Overall Rating | Improves Air Quality | Protects Water, Open Space, Wildlife, etc. | Preserves Natural/Cultural Resources | Overall Rating | Improves Mobility for EJ Residents | Addresses EJ Issue | Overall Rating | Considers Land Use & Economic Plans | Supports Sustainable Development | Serves Existing Center of Activity | Provides Links for Economic Activities | Overall Rating | | |

Limited Access Highway Projects - Interchanges (1 of 2)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---------------------|---|---------|----------|------|-----------|-----|--|---|---|---|---|---|---|---|---|-----|--|------|---|---|---|---|---|---|---|---|---|---|---|----|----|----|----|-------|--------------|---------------|---------|--|---|
| 1-50 | Reading and Woburn | I-93/I-95 Interchange | 327,000 | 51-78% | 59% | N/A | N/A | | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 3 | 147 | | 1.23 | 2 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1.25 | \$187,300,000 | RTP | MI/AQ | A high crash location (#1); with moderately high crash rate. It is used daily by the highest number of commuters. |
| 1-14 | Canton | I-93/I-95 Interchange | 212,000 | 46-80% | 60% | N/A | N/A | | 2 | 1 | 3 | 0 | 1 | 0 | 2 | 3 | 67 | | 0.87 | 1 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | -1 | -1 | 1 | 0.25 | \$225,000,000 | RTP | MI/AQ | A high crash location (#23) with low crash rate. Chronic congestion AM and PM. LOS F; Route to 128 commuter rail station; used by feeder shuttles to station. Implements previous MPO study; consistent with local growth planning study. Much abutting land protected (ACEC), MBTA station access. economic development district. |
| 5-10 | Braintree | I-93/Route 3 Interchange (Braintree Split) | 253,000 | 33-80% | 64% | N/A | N/A | | 2 | 1 | 3 | 0 | 0 | 0 | 2 | 3 | 55 | | 0.56 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | 0 | -0.75 | \$34,632,000 | RTP | MI/AQ* | A high crash location (#30) with low crash rate. Congestion in AM NB (entering split) and PM SB (both entering and leaving split). Implements results of previous MPO study. * AQ depending on alternative chosen. | |
| 1-62 | Somerville | I-93/Mystic Avenue Interchange | 174,000 | 31-36% | 34% | N/A | N/A | | 2 | 1 | 2 | 1 | 0 | 0 | 2 | 2 | 106 | | 1.67 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | -1 | 1 | 2 | 1.00 | \$60,840,000 | RTP | MI/AQ | A high crash location (#4) with medium crash rate. Design addresses safety on the arterial local road network. Some elements at LOS F in AM. At the intersection of 2 major regional roadways. Used by 3 MBTA bus routes accessing Orange Line rapid transit and commuter rail stations; will provide access to proposed Assembly Square station and major future development; rezoned to encourage high-density/mixed use development. Somerville is a state economic target area. Lack of direct access from Route 28, south of I-93; lack of pedestrian access under I-93. |
| 1-20 | Concord and Lincoln | Route 2/Crosby's Corner Grade Separation ⁶ | 45,500 | 66-120% | 93% | 27.8/34.7 | N/A | | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 9 | | 0.64 | 1 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | -1 | -3 | 1 | -0.50 | \$72,000,000 | RTP/TIP | MI/AQ | AM and PM LOS F (1995). High commuting use. Consistent with Concord long-range planning. High crash location (#775) with low crash rate. |
| 1-56 | Revere | Route 1A/Route 16 Connection ⁶ | 52,500 | 60-65% | 63% | 36.5/88.8 | N/A | | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | N/A | | N/A | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1.00 | \$48,152,000 | RTP | MI | A high usage corridor to Boston and Logan. Below 70% posted speed in AM and at LOS E/F in PM. Revere is a state economic target area. | |
| 1-54 | Revere | Route 1/Route 16 Interchange | 133,000 | 102-114% | 108% | N/A | N/A | | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 3 | 39 | | 0.81 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | -1 | -1 | 1 | 0.00 | \$4,784,000 | RTP | AQ | A high crash location (#80) with low crash rate. Will improve mobility regional connections from Routes 1A, 107, and 1. Benefits EJ community. Linked to other improvements in the corridor. Revere is a state economic target area. Route 1/Route 16 would remove traffic now going through Mahoney Circle. Direct connection would relieve Mahoney Circle/Route 60 traffic delays. |

Ratings scale: -3 to 3

MI = Major Investment (Over \$10 Million)
AQ = Regionally Significant for AQ Conformity

**JOURNEY to 2030 Projects List
Evaluation Criteria Rating**

DRAFT

| Page in Universe of Projects and Programs Binder | Community | Project | Mobility | | | | | | | | | | | | | | Safety & Security | | | | Preservation | Environment | | | Regional Equity | | Land Use & Economic Development | | | | Revised Current Cost | Project Info. | | Notes | | | | | |
|--|-----------|---------|---|--|---|--|--|-----------------------------------|-------------------------------------|---------------------------------------|---------------------------------|-------------------------|--------------------------------|----------------------------------|--------------------------------------|---------------------------|-------------------|-------------------------------|--------------|--|--|---|----------------|---------------------------|-----------------|----------------------|--|---------------------------|-----------------|--------------------------------------|----------------------|------------------------------------|--------------------|----------------|-------------------------------------|----------------------------------|------------------------------------|--|----------------|
| | | | MMS Data | | | | | | MMS Data | | | | | | | | MMS Data | | | | | MMS Data | | MMS Data | | | | Current Status of Project | Type of Project | | | | | | | | | | |
| | | | Average Daily Traffic Entering Interchange ¹ | Peak Hour Speed Index - Range ² | Average Peak Hour Speed Index in Peak Direction | Average Delay Per Mile - AM/PM (Seconds of Delay per Mile) | Average AM/PM Delay at Intersection (Seconds of Delay) | Volume/Practical Capacity - Range | Volume/Practical Capacity - Average | Improves Connections/Access to System | Improves Public Transit Service | Expands System Capacity | Provides Bike & Ped Facilities | Addresses Suburban Transit Needs | Better Access for Target Populations | Improves Freight Mobility | Overall Rating | Crashes Per Year ³ | Crashes/Mile | Crash Rate Per Million Vehicles ⁴ | Enhances Safety of Infrastructure for Users ⁵ | Component of Safety/Security Initiative | Overall Rating | Preserves Existing System | Overall Rating | Improves Air Quality | Protects Water, Open Space, Wildlife, etc. | | | Preserves Natural/Cultural Resources | Overall Rating | Improves Mobility for EJ Residents | Addresses EJ Issue | Overall Rating | Considers Land Use & Economic Plans | Supports Sustainable Development | Serves Existing Center of Activity | Provides Links for Economic Activities | Overall Rating |

Limited Access Highway Projects - Interchanges (2 of 2)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|------------------------|---|---------|--------|-----|------------|-----|--|---|---|---|---|---|---|---|---|----|------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-------|--------------|--------------|--------------|---|---|--|
| 1-52 | Revere | Mahoney Circle Grade Separation | 52,500 | 35-53% | 44% | 36.5/88.8 | N/A | | 2 | 1 | 2 | 1 | 0 | 0 | 2 | 2 | 48 | 2.52 | 3 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1.00 | \$15,600,000 | RTP | MI/ AQ | Questionable community support. Development of parcels in project area will hinder project. A high crash location (#46) with high crash rate. LOS D in AM and LOS D and F in PM. The 18th most delayed intersection in the MPO region. Moves regional trips from local roads; benefits this EJ community. Revere is a state economic target area. Within 1/2 mile of MBTA Blue Line rapid transit station. |
| 1-40 | Marlborough and Hudson | I-495/I-290/Route 85 Connector Interchange ⁶ | 97,000 | 83-98% | 91% | N/A | N/A | | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 53 | 1.50 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1.25 | \$28,704,000 | RTP | MI/ AQ | Existing safety problems. A high crash location (#48), with medium crash rates; truck rollovers. Ramps at or near LOS F. | |
| 1-16 | Canton | I-95 Northbound/Dedham Street Ramp and Bridge | 106,500 | 71-80% | 76% | N/A | N/A | | 3 | 1 | 3 | 0 | 1 | 0 | 2 | 3 | NA | NA | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | 1 | 1 | 0.75 | \$3,500,000 | RTP | AQ | Benefit for local streets and access to major industrial/commercial area. Improves access to Westwood and MBTA 128 commuter rail station. Implements previous MPO study; consistent with local growth planning study. In protected area (ACEC). Provides direct connection with Westwood business district and MBTA commuter station, eliminating circuitous access from I-95/Route 128. Canton opposition. | |
| 1-18 | Concord | Concord Rotary/Route 2 ⁶ | 42,000 | 36-48% | 42% | 21.4/69.8 | N/A | | 3 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 41 | 2.44 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | -1 | 0 | -1.00 | \$41,600,000 | RTP | MI | A high crash location (#123) and high crash rate. One of 5 busiest radial routes to Boston; high commuting use. Questionable support by Concord. | |
| 1-8 | Boston | Route 1A/Boardman Street Grade Separation ⁶ | 65,500 | 33-40% | 36% | 55.4/133.5 | N/A | | 2 | 1 | 2 | 0 | 0 | 0 | 2 | 2 | 8 | 0.32 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | -1 | 1 | 1 | 0.25 | \$10,400,000 | RTP | MI/ AQ | A high crash location (#600). LOS D in AM and F in PM. Ranked 1A's worst intersection. Air quality benefits. | |
| 1-22 | Danvers and Peabody | Route 1/Route 114 Corridor Improvements | 77,000 | N/A | N/A | N/A | N/A | | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 40 | 1.41 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | -1 | 1 | 0.25 | \$48,672,000 | RTP | MI/ AQ | A high crash location (#15). Serious congestion in AM and PM. Corridors are in designated redevelopment districts. | | |
| 1-72 | Wilmington and Reading | I-93/Route 129 Interchange Improvement Project | 177,000 | 88% | 88% | N/A | N/A | | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 49 | 0.76 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 1 | -0.25 | \$18,200,000 | RTP | MI/AQ | Two high crash locations (#46 and #136). LOS D in PM at one ramp; LOS F in AM and E in PM at another (the 15th most delayed intersection in N. Suburban subregion in PM). | | |

¹ "Average Daily Traffic Entering Interchange" is a measure of the traffic activity at the interchange. It is defined by the sum of the ADT entering the interchange from all approaches, highway and arterial/other. ADT volumes were collected in 2003-2008.

² Speeds were collected during spring 2004-fall 2007.

³ Crash data is from 2004 - 2006

⁴ Crash rate per million entering vehicles = (Avg. # of crashes per year * 10⁶) / (ADT * 365)

⁵ Safety Rating is largely based on the following criteria: crash rate < 1; crash rate greater than 1 but less than 2; crash rate > 2: 3

⁶ ADT counts are from major road only, not all 4 approaches to the interchange.

**JOURNEY to 2030 RTP Projects List
Evaluation Criteria Rating**

DRAFT

| Page in Universe of Projects and Programs Binder | Community | Project | Mobility | | | | | | | | | | | | | Safety & Security | | | | Preservation | Environment | | | Regional Equity | | Land Use & Economic Development | | | | Revised Current Cost | Project Info. | | Notes | | | | | | | |
|--|---------------------|---------------------------------|-------------------------------------|---|--|--|---|---|---|---------------------------------------|---------------------------------|-------------------------|--------------------------------|----------------------------------|--------------------------------------|---------------------------|----------------|------------------|--------------|---|---|---|----------------|---------------------------|----------------|---------------------------------|--|--------------------------------------|----------------|------------------------------------|--------------------|----------------|-------|-------------------------------------|----------------------------------|------------------------------------|--|----------------|---|--|
| | | | MMS Data | | | | | | | | | | | | | MMS Data | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Average Major Road ADT ¹ | Range of Peak Hour Speed Index ² | Average Peak Hour Speed Index ³ | Average Delay Per Mile - AM/PM (Seconds of Delay per Mile) | Average AM/PM Delay at Intersection / Intersection (Seconds of Delay) | Range of Volume/Practical Capacity ⁴ | Average of Volume/Practical Capacity ⁵ | Improves Connections/Access to System | Improves Public Transit Service | Expands System Capacity | Provides Bike & Ped Facilities | Addresses Suburban Transit Needs | Better Access for Target Populations | Improves Freight Mobility | Overall Rating | Crashes Per Year | Crashes/Mile | Crashes/Average Annual Daily Traffic (Crashes per Million Vehicles) | Enhances Safety of Infrastructure for Users | Component of Safety/Security Initiative | Overall Rating | Preserves Existing System | Overall Rating | Improves Air Quality | Protects Water, Open Space, Wildlife, etc. | Preserves Natural/Cultural Resources | Overall Rating | Improves Mobility for EJ Residents | Addresses EJ Issue | Overall Rating | | Considers Land Use & Economic Plans | Supports Sustainable Development | Serves Existing Center of Activity | Provides Links for Economic Activities | Overall Rating | Revised Current Cost | Current Status of Project |
| Limited Access Highway Projects - Segments (1 of 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-4 | Beverly to Peabody | Route 128 Capacity Improvements | 80,200 | 73-102% | 89% | | 73-125% | 100% | 2 | 0 | 3 | 0 | 0 | 0 | 3 | 3 | 271 | 41 | | 3 | 3 | 3 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | -3 | -1 | 1 | -0.25 | \$150,800,000 | RTP | MI/ AQ | Eight high crash locations (#22 to #166). Oldest remaining section of 128; poor design standards and high volumes. |
| 1-38 | Malden and Revere | Route 1 Improvements | 86,600 | 30-110% | 85% | | 108% | 108% | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 3 | 100 | 55 | | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | 1 | 1 | 0.75 | \$67,600,000 | RTP | MI/ AQ | A high crash location (#79). Congestion SB AM and NB PM peaks. Two redevelopment areas in project area; state economic target area. High crash location and substandard horizontal curve design. | |
| 1-68 | Weymouth to Duxbury | Route 3 South Additional Lanes | 85,900 | 60-105% | 96% | | 82-130% | 107% | 1 | 0 | 3 | 0 | 0 | 0 | 3 | 3 | 321 | 20 | | 2 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | -3 | -3 | -1 | 1 | -1.50 | \$219,024,000 | RTP | MI/ AQ | Four high crash locations (#8 to #84). LOS E and F AM and PM peaks; breakdown lane used in peaks. | |

¹ Average Major Road ADT: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor and then averaging the segment values for the project.

² Range of Peak Hour Speed Index: The speed index values were calculated by matching up the project area to the travel time run values conducted by the MMS. The speed from each segment of the travel time run was divided by the posted speed limit for that segment for Northbound/Eastbound and Southbound/Westbound direction during both the AM and PM Peak Hour. The results of these calculations were then used to define the range of values.

³ Average Peak Hour Speed Index: The speed index values were calculated by matching up the project area to the travel time run values conducted by the MMS. The speed from each segment of the travel time run was divided by the posted speed limit for that segment for Northbound/Eastbound and Southbound/Westbound direction during both the AM and PM Peak Hour. The results of these calculations were then averaged by project.

⁴ Range of Volume/Practical Capacity: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor. These values were then divided by the Practical Capacity (20,000 vehicle per lane) to generate the V/PC figures for each segment within the project area. The V/PC were then used to define the range.

⁵ Average of Volume/Practical Capacity: Values were calculated based on the information presented in the Traffic Volumes on Major Highways in Massachusetts book (May 2007). The ADT values were determined by matching the project area to the road segments presented in the book, converting the AWDT to ADT with a 0.875 adjustment factor. These values were then divided by the Practical Capacity (20,000 vehicle per lane) to generate the V/PC figures for each segment within the project area. The V/PC were then average to provide the value per project.

**JOURNEY to 2030 Projects List
Evaluation Criteria Rating**

| Page in Universe of Projects and Programs Binder | Community | Project | Mobility | | | | | | | | | | Safety & Security | | | | Preservation | Environment | Regional Equity | Land Use & Economic Development | Revised Current Cost | Project Info. | | Notes | | | | | | | | | | | | | | | | | | | |
|--|-----------------------------------|--------------------------------------|--|--|------------------------------------|-----------------------------------|---------------------------------------|---------------------------------|-------------------------|--------------------------------|----------------------------------|--------------------------------------|-------------------|--------------|---|---|---------------------------|----------------|-----------------|---------------------------------|----------------------|---|----------------|-------|---------------------------|----------------|----------------------|--|--------------------------------------|----------------|------------------------------------|--------------------|----------------|-------------------------------------|----------------------------------|------------------------------------|--|--|---|---|---|--|--|
| | | | MMS Data | | | | | | MMS Data | | | | Crashes Per Year | Crashes/Mile | Crashes/Average Annual Daily Traffic (Crashes per Million Vehicles) | Enhances Safety of Infrastructure for Users | | | | | | Component of Safety/Security Initiative | Overall Rating | | Preserves Existing System | Overall Rating | Improves Air Quality | Protects Water, Open Space, Wildlife, etc. | Preserves Natural/Cultural Resources | Overall Rating | Improves Mobility for EJ Residents | Addresses EJ Issue | Overall Rating | Considers Land Use & Economic Plans | Supports Sustainable Development | Serves Existing Center of Activity | Provides Links for Economic Activities | Overall Rating | Current Status of Project | Type of Project | | | |
| Range of Average daily Traffic | Range of Peak Hour Speed Index | Average Peak Hour Speed Index | Average Delay Per Mile - AM/PM (Seconds of Delay per Mile) | Average AM/PM Delay at Intersection (Seconds of Delay) | Range of Volume/Practical Capacity | Average Volume/Practical Capacity | Improves Connections/Access to System | Improves Public Transit Service | Expands System Capacity | Provides Bike & Ped Facilities | Addresses Suburban Transit Needs | Better Access for Target Populations | | | | | Improves Freight Mobility | Overall Rating | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arterial Roadway Projects - Intersections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-28 | Framingham | Route 126/Route 135 Grade Separation | 36,800 | | | 218/220 | | | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 33 | | 2.46 | 3 | 2 | 3 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2.00 | \$52,000,000 | RTP | MI | A high crash location (#130). Intersection at LOS F in AM and PM. Second worst in MetroWest subregion and 8th worst in MPO region. MBTA commuter rail station in the vicinity and LIFT buses operate in area. Is an identified EJ community. Linked to downtown redevelopment. | | | | | | |
| Arterial Roadway Projects - Segments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-66 | Weymouth | Route 18 Capacity Improvements | 25,200 to 36,600 | | | 51/55 | | | 3 | 0 | 3 | 1 | 0 | 0 | 2 | 3 | 367 | | 81 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 2 | 1.75 | \$26,100,000 | RTP/TIP | MI/AQ | Three high crash locations (#8 to #298). Six intersections in the top 25 most delayed in South Shore Coalition subregion. Provides access to South Weymouth commuter rail station on Plymouth Line. Part of development plan for S. Weymouth Naval Air Station, site designated for redevelopment. Weymouth is a state economic target area. |
| 1-26 | Everett, Medford, Revere | Route 16 (Revere Beach Parkway) | 40,200 to 52,800 | | | 102/102 | | | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 3 | 197 | | 86 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | -1 | 1 | 0.50 | \$97,344,000 | RTP | MI/ AQ | Four high crash locations (#11 to #539). LOS E/F in AM and PM. Would improve access to MBTA Wellington Orange Line station. Important access to Telecom City site. Everett is a state economic target area. | | | | |
| 1-2 | Bedford, Burlington and Billerica | Middlesex Turnpike Improvements | 15,000-20,000 | | | 25/28 | | | 1 | 0 | 3 | 1 | 0 | 0 | 2 | 2 | 20 | | 9 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | -1 | 1 | 0.25 | \$33,041,840 | RTP/TIP | MI/AQ | LOS E in AM and PM along Turnpike. LOS F at 6 of 7 intersections. Adding sidewalks. Improvements in a multi-community Economic Opportunity Area. | | | | | |
| 1-44 | Newton and Needham | Needham Street/Highland Avenue | 25,200 to 34,000 | | | N/A | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 90 | | 65 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | -1 | 1 | 0.25 | \$8,100,000 | RTP | AQ? | One high crash location (#41). LOS E/F in AM and PM. MBTA bus route uses Needham St. in Newton. Needham section in a redevelopment district; project would facilitate. | | | | | | |
| 1-10 | Boston | Rutherford Avenue | 12,600 to 29,100 | | | N/A | | | 1 | 1 | -1 | 0 | 0 | 0 | 0 | 0 | 23 | | 20 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 3 | 2.25 | \$79,300,000 | RTP | MI | Two Orange Line rapid transit stations adjacent to project. An Urban Ring Phase 2 route. Would improve access to historic resources and park; improve pedestrian facilities; add open space. Boston is a state economic target area. | |
| | Woburn | Montvale Avenue | 33,600 to 36,400 | | | | | | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 44 | | 220 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | \$3,400,000 | AQ | Improvements in traffic flow. Adding additional lanes between I-93 and Washington Street and will improve flow at Montvale and Washington Street intersection. | |
| 7-10 | Marshfield | Route 139 Improvements | 6,200 to 20,100 | | | 10/14 | | | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 22 | | 10 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | -1 | -1 | 1 | 0.00 | \$7,150,200 | AQ | Sidewalks and shared bicycle lane (shoulder) included. Development consistent with local master plan. | | |
| 7-4 | Milford | Route 16 Bypass Road | 17,800 to 25,000 | | | 56/68 | | | 2 | 0 | 3 | 0 | 0 | 0 | 1 | 2 | 23 | | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -1 | -2 | 0 | -0.25 | | AQ | Improvements in traffic flow and a bike trail extension. Crash information is for Route 16 in area of bypass. | | | |

Ratings scale: -3 to 3

MI = Major Investment (Over \$10 Million)
AQ = Regionally Significant for AQ Conformity



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James A. Aloisi, Jr.
Secretary of Transportation
and MPO Chairman

Arnold J. Soolman
Director, MPO Staff

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 Salem

City of Somerville

Town of Bedford

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 March 5, 2009
TO Transportation Planning and Programming Committee
of the Boston Region Metropolitan Planning Organization
FROM Arnold J. Soolman, CTPS Director
RE Work Program for: Route 126 Corridor Transportation Improvement
Study, Bellingham to Framingham

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Transportation Planning and Programming Committee of the Boston Region Metropolitan Planning Organization vote to approve the work program for Route 126 Corridor Transportation Improvement Study in the form of the draft dated March 5, 2009.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification

Planning Studies

CTPS Project Number

43108

Client

Boston Region Metropolitan Planning Organization

CTPS Project Supervisors

Principal: Efi Pagitsas

Manager: Seth Asante

Funding

Massachusetts Highway Department 3C PL Contract #56242 and Executive Office of Transportation and Public Works FTA 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

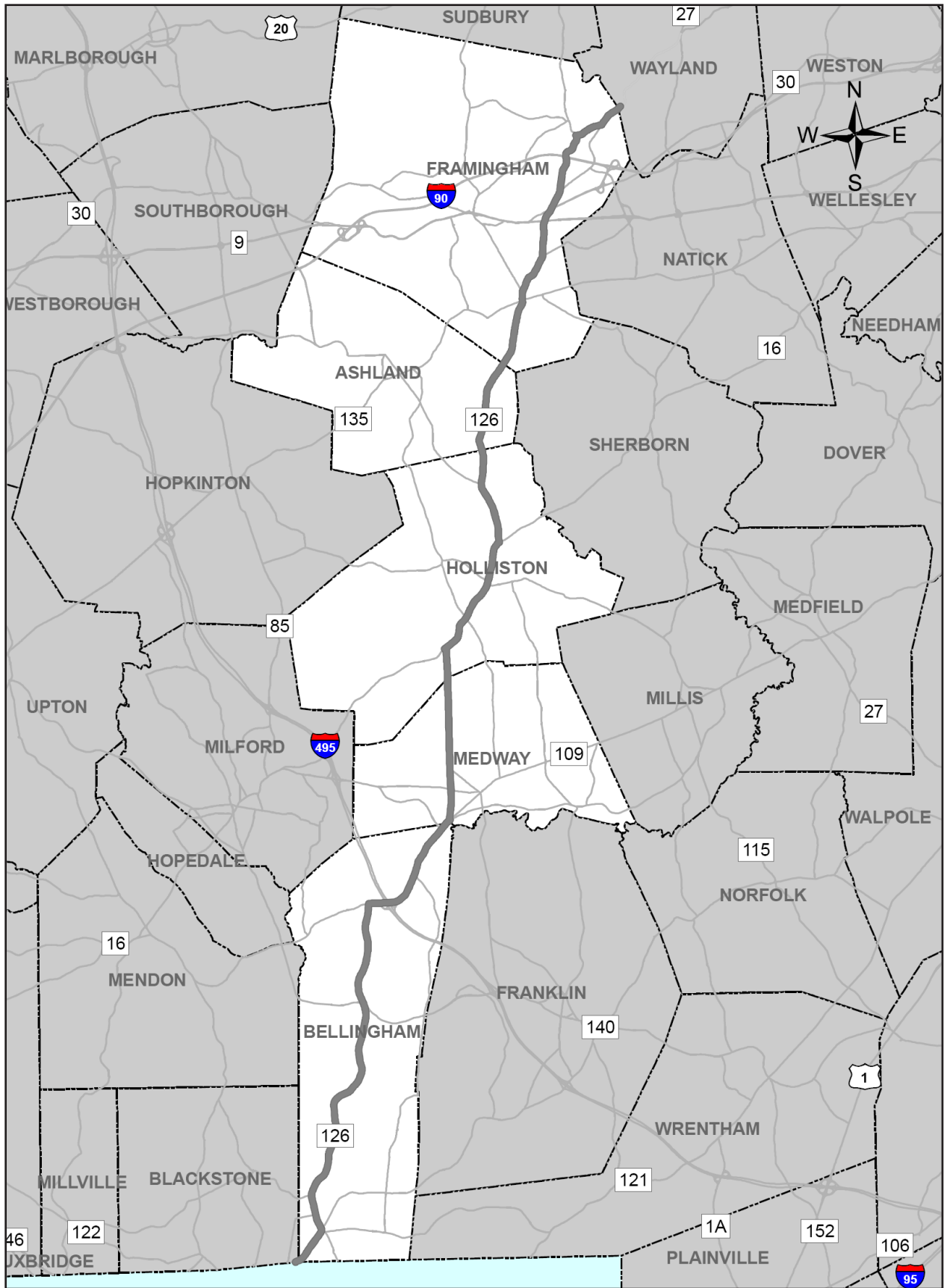
Route 126 is a rural minor arterial with certain portions maintained and operated by the towns and others by the Massachusetts Highway Department. The Massachusetts Highway Department maintains and operates the sections of Route 126 near the I-495 interchange in Bellingham and a major portion of Route 126 in Holliston, Ashland, and Framingham. In the study area, this north-south roadway is two lanes wide for the majority of its length, and wider, including exclusive turning lanes, in the vicinity of the I-495 interchange, at the town centers, and in areas with strip malls. The land use along Route 126 in all of the towns is residential, commercial, or mixed. The roadway assumes several names in each of the towns along the corridor and crosses major east-west roadways and highways, including, from west to east, I-495, Route 16, Route 109, Route 135, and Route 140. (See Exhibit 1 for a depiction of the general study area.)

Based on monitoring of Route 126 performed as part of the Mobility Management System (MMS), on prior studies, and on staff knowledge of the area, it is known that high traffic volumes and delays characterize the roadway, especially at the town centers, areas with strip malls, and major intersections. Sections of the corridor, particularly in residential areas, in areas close to commercial areas, and at intersections, lack pedestrian and bicycle amenities. In order to receive town officials' input to this work program, staff met with the SouthWest Advisory Planning Committee (SWAP) and MetroWest Growth Management Committee (MetroWest) members. Officials expressed concern about pedestrian circulation, bicycle accommodation, curb cut and access management, and intersections with traffic safety problems. The work program tasks that follow were developed with these comments in mind.

OBJECTIVES

The objectives of this study are to identify mobility, access, safety, and other transportation-related problems at selected locations along Route 126 in the study area and to identify and evaluate multimodal transportation solutions to the problems. To this end, the study will identify and analyze seven to ten Route 126 locations and/or associated bus transit service issues in order to improve mobility along and across the corridor, particularly accessibility to the towns' shopping, commercial, educational, and service centers. The study will also look at adjacent locations on crossing routes with safety and operations problems that impact travel within the Route 126 corridor. Additionally, the study will look at continuity/connectivity of improvements in the Route 126 corridor such as sidewalks and shoulders.

The locations selected for analysis will be ones that could benefit from improvements related to pedestrian crossings, sidewalks, access management, traffic control and signs (including traffic signal upgrades and coordination), and/or pavement markings.



CTPS

**EXHIBIT 1
Study Area Map**

*Route 126 Corridor Transportation
Improvement Study*

Bus mobility and service issues to address could include the need to improve bus flow through intersections along the corridor and issues regarding access to and connectivity with other modes. The overall goal of the study is to improve mobility for pedestrians, bicyclists, bus riders, and general traffic along Route 126. To accomplish this, staff will perform the following tasks:

1. Form an advisory task force
2. Identify study locations
3. Define transit mobility/service issues
4. Collect data
5. Analyze data
6. Recommend improvements
7. Document findings

WORK DESCRIPTION

Task 1 Form an Advisory Task Force

In addition to town officials and members of the Metropolitan Area Planning Council (MAPC) subregions SWAP and MetroWest, staff will invite representatives from the Massachusetts Highway Department and from EOTPW, and interested state representatives and affected residents to participate in the study by offering advice and input on data, study location selections, and recommendations. Recommendations from this study would be carried out by the municipalities and the Massachusetts Highway Department, which operate and maintain portions of Route 126 in the study area. Staff anticipate that the group will meet twice during the study: once to discuss concerns, including study locations and likely solutions, and a second time for staff to report findings and discuss likely recommendations.

Products of Task 1

The formation of an advisory task force to advise the study, and staff preparation for two meetings with the task force

Task 2 Identify Study Locations

After reviewing the comments from preliminary meetings with municipal officials, staff will visit the field to observe the locations brought up at those meetings and to identify additional ones. The reconnaissance will take place in the Route 126 corridor from Bellingham to Framingham. Staff will take note of pedestrian and bicycle amenities, with emphasis on potential conflicts between pedestrians and traffic. Staff will observe problem intersections, roadway geometry, pavement markings, and signs.

Finally, staff will review other ongoing studies related to the Route 126 corridor in the study area (including studies related to the Route 126/Route 135 grade separation in

downtown Framingham, any studies related to possible land development, and recommendations from Walkable Communities Workshops performed by MPO staff), MassHighway crash location files, and the MPO's MMS files. Staff will summarize this information and present it to the advisory task force for input into the selection of the final study locations and bus service issues to analyze.

Products of Task 2

Field visit and reconnaissance notes, including documentation of rationale for the selection of the final study locations

Task 3 Define Transit Mobility/Service Issues

An ongoing CTPS study, "MetroWest RTA Service Planning Assistance," is evaluating MWRTA transit service to identify potential improvements to present routes and schedules or possible new routes that could be implemented without increasing the net operating cost of the system. Using information from that study, Route 126 study staff will look at possible service deficiencies on bus Route 6, which uses Route 126 to connect to MBTA stations and service centers in Framingham and beyond. This assessment will be done in coordination with MWRTA.

Products of Task 3

- Documentation of transit service issues
- On-time performance, loads, and stop locations for bus Route 6

Task 4 Collect and Gather Data

As much as possible, recent and historical data will be gathered from existing sources, including studies performed by municipalities or by proponents of private development projects. Unavoidably, some data will have to be collected in the field. For the type of analysis anticipated for this work program, the following data is likely to be gathered or collected: turning movement counts for the AM and PM peak periods, including trucks; pedestrian and bicyclist counts; average annual weekday traffic; traffic-signal phase timing, including duration and coordination (if applicable); pavement widths, right-of-way, pavement markings and condition, traffic lane allocation, parking and other signs, and sidewalk widths; development projects and development mitigation proposals; transportation projects; and crash statistics from the Registry of Motor Vehicles (RMV), including local-police crash reports (if readily available) for the development of crash diagrams.

Products of Task 4

- Pedestrian and bicyclist counts
- Bus service performance data and bus stop locations
- Average annual weekday traffic counts and peak-period turning movement counts
- Geometric and traffic signal data at intersections and between intersections
- Right-of-way, pavement markings, signage, parking, and bus-stop information

- RMV and municipal-police crash information
- Economic development and transportation/traffic improvement proposals

Task 5 Analyze Data

It is anticipated, based on the types of analyses performed in similar studies in the past, that the following types of analyses and evaluations will likely be performed:

- Crash data and crash diagrams to confirm/identify safety concerns
- Pedestrian phases, including conflicts between vehicle and pedestrian phases, and the current condition of traffic signal equipment
- Need for sidewalks and continuity of sidewalks
- Signalizing mid-block pedestrian crossings or adding new ones
- Delays and coordination parameters at existing signalized locations
- Traffic signal warrants for unsignalized intersections with safety and congestion problems
- Bus-stop placement in relationship to demand and pedestrian activity
- On-time performance of bus service

Products of Task 5

Products of the types of analyses and evaluations described above include crash analysis tables, intersection crash diagrams, delay and queue calculations, bus performance statistics, and maps and other graphics showing pedestrian needs and conflicts with traffic.

Task 6 Recommend Changes for Pedestrian Mobility, Traffic Operational Improvements, and Bus Service Improvements

From the combined results of consultations with local officials and the advisory task force, and the results of the analyses described above, staff will recommend geometric, traffic control, and other changes for improved traffic operations, with special emphasis on the effective and safe accommodation of pedestrians and bicyclists. Additional recommendations of bus service improvements may also be developed. All results will be presented for discussion and input at the second meeting of the advisory task force.

Products of Task 6

Recommendations to address pedestrian and motorist safety, accommodation of pedestrians and bicycles, other traffic operations issues, and any bus service issues in the Route 126 corridor

Task 7 Document Study Results

Documentation will be in the form of a report on the following subjects: study background, identification of problems, data collection, analyses, and recommendations. The task force will first review the draft report, and, after its comments have been

addressed, the draft will be submitted to the Transportation Planning and Programming Committee of the MPO for final approval.

Product of Task 7

A final report documenting all of the project's tasks and products, including recommendations

ESTIMATED SCHEDULE

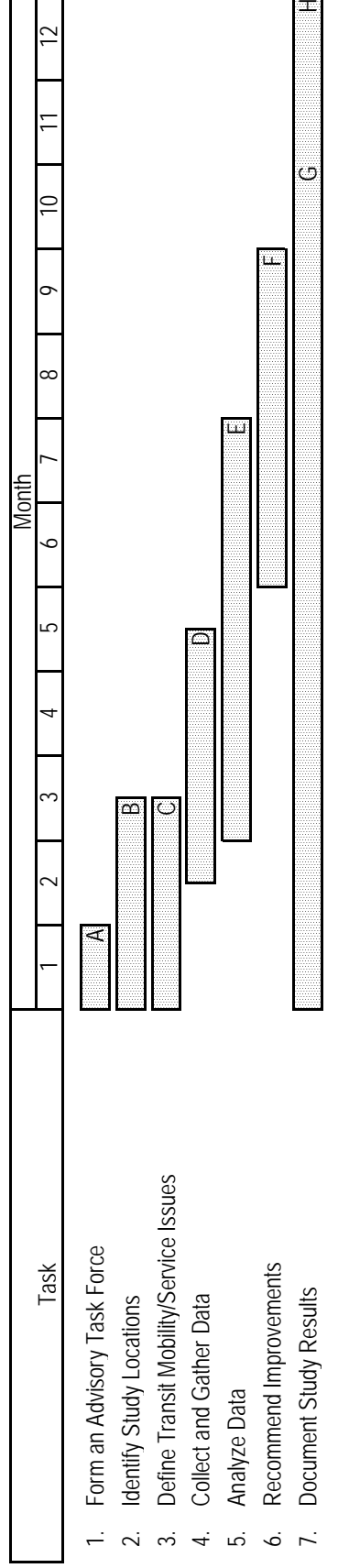
It is estimated that this project would be completed twelve months after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 2.

ESTIMATED COST

The total cost of this project is estimated to be \$116,437. This includes the cost of 50.5 person-weeks of staff time, overhead at the rate of 86.97 percent, and travel. A detailed breakdown of the estimated costs is presented in Exhibit 3.

AJS/SAA/saa

Exhibit 2
ESTIMATED SCHEDULE
 Route 126 Corridor Improvements



Products/Milestones

- A: Products of Task 1
- B: Products of Task 2
- C: Products of Task 3
- D: Products of Task 4
- E: Products of Task 5
- F: Products of Task 6
- G: Draft Report
- H: Final Report

Exhibit 3
 ESTIMATED COST
 Route 126 Corridor Improvements

Direct Salary and Overhead \$115,437

| Task | Person-Weeks | | | | | | Total | Direct Salary | Overhead (@ 86.97%) | Total Cost |
|---|--------------|-------------|------------|------------|------------|-------------|-----------------|-----------------|---------------------|------------|
| | M-1 | P-5 | P-4 | P-1 | Temp | Total | | | | |
| 1. Form an Advisory Task Force | 0.5 | 1.0 | 0.0 | 0.0 | 0.0 | 1.5 | \$2,414 | \$2,099 | \$4,513 | |
| 2. Identify Study Locations | 0.5 | 3.0 | 0.0 | 0.0 | 0.0 | 3.5 | \$5,604 | \$4,874 | \$10,478 | |
| 3. Define Transit Mobility/Service Issues | 0.5 | 1.0 | 2.0 | 0.0 | 0.0 | 3.5 | \$4,854 | \$4,221 | \$9,075 | |
| 4. Collect and Gather Data | 0.5 | 2.0 | 1.0 | 3.5 | 8.0 | 15.0 | \$11,658 | \$10,139 | \$21,797 | |
| 5. Analyze Data | 0.5 | 4.0 | 2.0 | 3.0 | 0.0 | 9.5 | \$11,659 | \$10,140 | \$21,798 | |
| 6. Recommend Improvements | 0.5 | 4.0 | 2.0 | 2.0 | 0.0 | 8.5 | \$10,986 | \$9,554 | \$20,540 | |
| 7. Document Study Results | 5.0 | 4.0 | 0.0 | 0.0 | 0.0 | 9.0 | \$14,567 | \$12,669 | \$27,236 | |
| Total | 8.0 | 19.0 | 7.0 | 8.5 | 8.0 | 50.5 | \$61,742 | \$53,697 | \$115,437 | |

Other Direct Costs \$1,000

Travel \$1,000

TOTAL COST **\$116,437**

Funding
 Massachusetts Highway Department 3C PL Contract #56242 and Executive Office of Transportation and Public Works FTA Contract MA-80-0003