

Scope of Work: Impact of Bus Priority Lanes on Emergency Services

March 5, 2024

I. Introduction/Project Background

Since 2018, the MBTA and its municipal partners have added more than 40 miles of bus priority infrastructure to the MBTA service area. These lanes protect MBTA buses and other high-capacity vehicles from traffic, improving their speed and reliability even as population and car ownership increase in the region. With plans to add dozens of additional lane miles annually over the next five to seven years, the MBTA's Transit Priority team is working to quantify impacts of this work for all roadway users.

The MBTA seeks to research the impact of this priority infrastructure on the response times of emergency medical services (EMS) throughout the region to better understand the myriad ancillary impacts of the MBTA's Transit Priority Program.

This project is expected to take 12 months from Notice to Proceed. The anticipated budget is \$100,000.

IA. Definitions

The term "EMS" should be interpreted expansively to include emergency medical and fire services, both public and private.

The term "bus lane" should be understood as any bus priority lane (often striped red), regardless of the roadway owner or the original designer. Some lanes are not designed or implemented by the MBTA but benefit the service regardless.

IB. Study Area

The study area(s) should include EMS response zones traversed by bus lanes. This may include the following corridors in Boston:

- Tremont St/Columbus Ave (0.7 mi)
- Huntington Ave (1.1 mi)
- Washington St (South End) (1.3 mi)
- Washington St (Roslindale) (1.6 mi)

IC. Deliverables

The selected consultant team will produce and deliver discrete products at the conclusion of each task as listed below. Additionally, the selected team will be asked to repackage each discrete deliverable as a chapter or section in a final report that will be presented to MassDOT and the MBTA at the conclusion of the project.

In addition, the selected consultant team will be required to share and transfer all the data and resources used in the compilation and development of each deliverable where relevant and applicable (as determined by MassDOT). Qualitative data and resources include but are not limited to reports,

articles, scholarly research, interviews, and focus groups. Quantitative and spatial data include but are not limited to spreadsheets, statistical software files, and shapefiles.

ID. Data

All data proposed for use in in this project work must be reviewed and approved by MassDOT independently of this scope. MassDOT owns and has access to data that can and may be used as part of this project; the selected consultant must review the data currently owned and retained by MassDOT and privilege this data over outside or additional resources. Should additional data be considered required or beneficial, all proposed data procurements must be approved by MassDOT in addition to this scope prior to Notice to Proceed. (MassDOT reserves the right to use and/or procure new supplemental data that may become available during the study).

Should a data procurement be found to be beneficial or necessary, MassDOT will retain exclusive and non-transferable ownership of the procured data beyond applications to the immediate project. The rights and privileges associated with the procured data will be at the sole discretion of MassDOT. This means that MassDOT retains the right to use, and have Designated Users use, any procured data for purposes deemed worthwhile for enhancing transportation planning activities in the Commonwealth of Massachusetts.

IE. Project Management and Administration

The selected consultant must schedule a kickoff meeting with the MassDOT Project Manager and other staff (as needed) upon Notice to Proceed. At the kickoff meeting, the selected consultant will recommend the number, frequency, and format of ongoing progress meetings with MassDOT staff as well as specific timelines and timeframes for turnaround and MassDOT review of draft and/or final versions of deliverables, when not pre-defined by MassDOT.

At the kickoff meeting, the selected consultant must also review the project Data Quality Control and Assurance Plan. The Data Quality Control and Assurance Plan should review the steps that the consultant expects to take to review and validate the work associated with the deliverables of this project.

Budget status and spending updates should be integrated into the regular check-in process with MassDOT Project Management at a frequency determined at the kickoff meeting. The selected consultant must notify MassDOT Project Management if forecasted spending in any one budget area is outpacing initial estimates.

II. Project Tasks

Task 1. Scoping and methodology

Task 1 will be to clarify the goals, objectives, and scope of analysis for the study. This will provide the framework for Task 2 and Task 3.

Task 1 is expected to take 2 months to complete.

Task 1 Deliverables:

- Geographic scope, clearly identifying the specific segments of corridors to be studied
- Justification for geographic scope, using factors such as proximity to downtown and availability of EMS data
- Survey methodology and survey instrument

Task 2. Survey and outreach

Task 2 will be to survey EMS drivers in the study area(s) about their experiences with bus lanes. The data from this survey will support Task 3.

Task 2 is expected to take 4 months to complete.

Task 2 Deliverables:

- List of possible participants
- Summary of participants contacted and included
- Technical summary of data available for Task 3
- Raw data collected during survey of EMS drivers
- Synthesized and summarized data collected during survey in report format

Task 3. Data analysis of EMS response times

Task 3 will be to analyze EMS response times.

Task 3 is expected to take 4 months to complete.

Task 3 Deliverables:

- Maps and supporting documentation, including shapefiles and datasets
- Technical documentation including methodology, assumptions, raw data, data dictionaries, metadata, references, and all intermediate data worksheets that led to final data points
- Memo summarizing information gathered and proposed methodology
- Draft report combining findings from Tasks 2 and 3

Task 4. Data synthesis and report

Task 4 will be to review and complete the draft report delivered in Task 3.

Task 4 is expected to take 2 months to complete.

Task 4 Deliverables:

- Final report
- Online accessible version of final report
- All electronic datasets and files. The electronic files (Word, PowerPoint, GIS Data layers, traffic analysis software, etc.) developed as part of the final report should also be provided to MassDOT on a USB flash drive or via secure electronic file transfer protocols. This includes data inputs and outputs used to complete study tasks and the final report, including technical documentation as well as raw, working, and final (“clean”) data files that would be necessary to recreate any quantitative or spatial elements of this project.