



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Phillip Eng, MPO Chair | Interim Secretary and CEO, Massachusetts Department of Transportation
Tegin Leigh Teich, Executive Director, MPO Staff

WORK PROGRAM

PEDESTRIAN-SCALE LIGHTING STUDY

FEBRUARY 5, 2026

Proposed Motion

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

Project Identification

Unified Planning Work Program (UPWP) Classification

Agency and Other Client Transportation Planning Studies and Technical Analyses

Project Number 26001

Client

Boston Region MPO

Project Supervisors

Principal: Jenn Emiko Concannon

Manager: Scott Pouder

Funding Source

MPO Planning Contract and MPO §5303 Contract 131249

Schedule and Budget

Schedule: Seven months after work commences

Budget: \$50,000

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

Relationship to MPO Goals

The Boston Region MPO elected to fund this study with its federally allocated metropolitan planning funds during federal fiscal year (FFY) 2026. The work completed through this study will address the following goal area(s) established in the MPO's Long-Range Transportation Plan: safety, transportation equity, and mobility and reliability.

Background

According to the National Highway Traffic Safety Administration (NHTSA), approximately 76 percent of pedestrian fatalities occur in dark and low-light conditions, and inadequate pedestrian-scale lighting designs are significant contributing factors. A total of 123 pedestrian crashes resulting in fatal or serious injuries occurred during dark or dusk lighting conditions or on unlit roadways in the region. To address this problem, the Massachusetts Department of Transportation (MassDOT) is developing a Pedestrian-Scale Lighting Guide to improve safety and comfort for vulnerable users at intersections, mid-block crossings, and roundabouts. This will serve as a technical resource for MassDOT, local municipalities, and other stakeholders, providing lighting specifications, warranting guidelines, and “visual aids to communicate technical guidance.” Further, MassDOT will select five crossing locations based on existing conditions data and provide mitigation measures and recommendations for each.

MPO staff will coordinate with MassDOT’s project team to apply the Pedestrian-Scale Lighting Guide findings to three to five case studies within the region that are in small to medium sized communities. These case studies will ultimately inform a white paper that supports cities and towns in the pedestrian-scale lighting process, providing guidance on implementing luminance, pole heights, and other design recommendations. The MPO will explore several implementation solutions that provide a repeatable, technical assistance-based process or that can be embedded within capital improvement projects or planning activities.

Objectives

The objectives of this study are as follows:

1. Understand existing methodologies and processes: Document existing pedestrian-scale implementation strategies through peer interviews and research.
2. Explore implementation strategies that align with regional pedestrian-scale lighting needs: In conjunction with MassDOT, identify and research potential implementation strategies and develop a series of recommendations that will inform future decision-making.
3. Develop a series of case studies: From MassDOT’s prioritized crossings list, the MPO will select three to five intersection, mid-block crossing, and roundabout locations. Each location will be used to develop a case study that incorporates MassDOT Pedestrian-Scale Lighting Guide recommendations and countermeasures. From the selected process, the MPO will outline implementation strategies and funding sources.
4. Create a repeatable implementation process for cities and towns within the Boston region: In coordination with MassDOT, develop a white paper with evaluation and implementation steps. This document will leverage recommendations and design considerations detailed in the Pedestrian-Scale Lighting Guide. The white paper will allow cities and towns within our region to understand the implementation process or funding sources and seek technical assistance.

Work Description

In coordination with MassDOT, the MPO will develop a pedestrian-scale lighting white paper for cities and towns within the Boston region. The project will include a review of peer MPO pedestrian-scale lighting implementation processes and interviews with peer agencies that will result in a series of implementation strategies and recommendations. The MPO will select three to five of MassDOT's prioritized crossing locations and document existing conditions, applying Pedestrian-Scale Lighting Guide recommendations and countermeasures.

Task 1 Literature Review

MPO staff will review pedestrian-scale lighting guidance, best practices, and programs or related design studies from peer agencies to develop a deeper understanding of regional implementation and procurement processes. The MPO will also conduct targeted outreach with peer agencies. This initial research will identify cost-effective solutions and processes and, ultimately, guide the MPO to determine an implementation strategy for cities and towns within the region.

Products of Task 1

Best practices document for implementation strategies through peer interviews and research

Task 2 Explore Implementation Strategies

From the initial research and interviews, the MPO will perform a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of potential implementation strategies. This preliminary analysis will help MPO and MassDOT staff identify approaches within existing frameworks that are best suited to implement pedestrian-scale lighting or integrate into a planning process. For example, the MPO may help a community with the planning process for a redesign of pedestrian scale lighting in a corridor through the MPO's technical assistance program.

Products of Task 2

SWOT analysis results and draft of documented implementation processes

Task 3 Case Study Development

From MassDOT's prioritized crossings list, the MPO will identify and select three to five high-priority crossings for small to medium communities in need of pedestrian-scale lighting and apply MassDOT's guide to evaluate these locations. MPO staff will collect information about existing safety and infrastructure conditions through field visits and desktop review. Staff may also conduct outreach with selected communities to review and fully understand their current pedestrian-scale lighting requirements and funding sources, in coordination with the MassDOT project team. Each case study will include these conditions with applied design recommendations and countermeasures.

Products of Task 3

Three to five case studies highlighting existing crossings conditions and infrastructure, the need for pedestrian-scale lighting, and recommended designs or countermeasures for each location

Task 4 White Paper

The MPO will develop a pedestrian-scale lighting white paper with recommended criteria and an accompanying review checklist in accordance with the MassDOT Pedestrian-Scale Lighting Guide.

Products of Task 4

Public-facing white paper outlining procedural steps for evaluating and selecting pedestrian-scale lighting

Exhibit 1
ESTIMATED SCHEDULE
Pedestrian-Scale Lighting Study

Task	Month						
	1	2	3	4	5	6	7
1. Literature Review			A				
2. Explore Implementation Strategy				B			
3. Case Study Development					C		
4. White Paper						D	

Products/Milestones

- A: Literature Review
- B: SWOT Analysis and Implementation Processes
- C: Case Studies
- D: White Paper

Exhibit 2
ESTIMATED COST
Pedestrian-Scale Lighting Study

Direct Salary and Overhead	\$49,815
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Task	Person-Weeks by Pay Grade					Direct Salary	Overhead (122.59%)	Total Cost
	G-9	G-8	G-7	G-6	Total			
1. Literature Review	0.1	0.0	0.0	2.0	2.1	\$3,467	\$4,250	\$7,717
2. Explore Implementation Strategy	0.0	0.2	0.0	3.5	3.8	\$5,952	\$7,296	\$13,248
3. Case Study Development	0.0	0.2	1.0	3.5	4.8	\$7,875	\$9,654	\$17,529
4. White Paper	0.0	0.2	0.0	3.0	3.2	\$5,086	\$6,235	\$11,321
Total	0.1	0.7	1.0	12.1	13.9	\$22,380	\$27,436	\$49,815

Other Direct Costs	\$185
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Travel	\$185
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TOTAL COST	\$50,000
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Funding

MPO Planning Contract #131249
MPO §5303 Planning Contract #131249

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