# 2027 State Planning and Research Program I

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# SPR I Part A

# Administration

## A.1 / Administration and SPR Coordination

**Task Lead:** Nathaniel Kerr

**Task Purpose:**

To supervise and direct planning and research staff and projects to maximize State Planning and Research (SPR) funding. The administrative staff includes the Executive Director, Deputy Executive Director, Director of Project-Oriented Planning, Director of Data and Policy, Director of Geospatial Technology, Manager of Administration, and administrative support staff. The administrative staff oversees all fiscal and administrative activities of the following units:

- Capital Planning
- GIS Services
- MPO Activities
- Environment, Social, & Governance group
- Multimodal Planning
- Public-Private Development
- Research
- Sustainable Transportation
- Transit Planning Guidance is also provided to the following units of the MassDOT Highway Division that are authorized for SPR reimbursement: Pavement Management, Statewide Traffic Data Collection, Traffic Crash Records and Safety Management, and Survey.

**Accomplishments in prior year:**

Maintained standard operating procedures for billing, project closeouts and new project/contract awards and funding to ensure proper billing and consistency with project and contract awards/closeouts. Built out new invoice tracking system to better manage and track vendor payments.

**Proposed activities for next year:**

SPR I and II administration, including required reporting, amendments, and scope approvals by FHWA. Submit SPR I and II deliverables to FHWA. Continue onboarding several OTP staff to fill vacancies. Internal working group to continue coordination with FHWA on billing, project closeouts and new contracts/awards consistent with SOP.

**Anticipated products:**

- Administration of SPR I and II Work Programs
- Address FHWA findings from SPR Process Management Review

- Update and maintain Standard Operating Procedure(s) addressing SPR management, contract billing and closeouts, and procurement.
- Build-out of new online platform to better manage SPR reporting.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $1,767,467.47**

*Estimated staff salaries and benefits: $1,419,467.47*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Liz Williams** | 100.0 |
| **Nathaniel Kerr** | 100.0 |
| **David Mohler** | 100.0 |
| **Susan Reppucci** | 100.0 |
| **Stephen Woelfel** | 100.0 |
| **Janine Hynds** | 100.0 |
| **Brenda Kaushal** | 100.0 |
| **Gina Jordan** | 100.0 |
| **Bob Frey** | 50.0 |
| **Derek Krevat** | 20.0 |
| **Jules Williams** | 20.0 |
| **Ethan Britland** | 20.0 |
| **Lionel Lucien** | 20.0 |
| **Charles Major** | 20.0 |
| **Derek Shooster** | 20.0 |
| **Michelle Scott** | 20.0 |
| **Jonathan Church** | 20.0 |
| **Nicole Bilbo** | 20.0 |
| **Hao Yin** | 20.0 |

*Estimated other costs:* $148,000.00

*Consultant costs: $200,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **SPR Platform and Reporting Development / TBD** | $400,000.00 | $0.00 | $200,000.00 | $200,000.00 | TBD | None | None |

*Other cost notes:*

1. TETC Membership dues: $92,000
2. AASHTO Annual Membership: $48,000
3. SFY27 Newspapers ads (STIP): $8,000

# Capital Planning

## A.2 / Capital Planning Development and Coordination

**Task Lead:** Michelle Scott

**Task Purpose:**

This task is necessary for the development of the annual Capital Investment Plan (CIP) for MassDOT, along with the implementation of related process improvements. Work under this task will involve the production of the state fiscal year (SFY) 2028-2032 MassDOT CIP, a fiscally constrained document that will include MassDOT's capital investments across all Divisions as well as investments for MassDOT's Enterprise Services and the state-funded portion of the MBTA CIP. In building this plan, staff will work with each MassDOT Division to identify and prioritize projects for funding over this five-year period. Additionally, staff will gather public input about capital investment priorities following the procedures established in MassDOT's Public Participation Plan. Staff will ensure that the CIP development process is aligned with the development of the State Transportation Improvement Program (STIP) and with the priorities, actions, and recommendations of Beyond Mobility, MassDOT's statewide long-range transportation plan. The SFY 2028-2032 CIP will account for trends and changing demands on our transportation system and the vision of how our transportation system should evolve to meet the needs of our customers and the changing demographics of the Commonwealth. With input and guidance from the Secretary, Administrators, and the Divisions, staff will revisit goals, strategic objectives, available funding, and priorities for the next five years in developing a new capital plan for MassDOT. The SFY 2028-2032 CIP will continue to incorporate process improvements for the planning cycle, such as:

- Enhancements to tools used to track project information and planned spending
- Improvements to the public engagement process
- Incorporation of objectives from updated asset management and strategic plans (such as the Commonwealth’s Transportation Asset Management Plan, Bicycle and Pedestrian Plans, and the Freight Plan, among others).
- Improvements to the CIP equity analysis. This task also covers staff presentations to and engagement with the MassDOT Board of Directors and its committees. In addition, it covers coordination with MassDOT’s Fiscal team, the Commonwealth’s Executive Office for Administration and Finance, and other internal and external stakeholders for CIP-related activities over the course of the year. As part of this task, staff may request consultant support through task A.16 “On Call Contracts” for producing and maintaining the CIP Universe of Projects and producing CIP documents, among other activities.

**Accomplishments in prior year:**

- Developed and published the SFY 2027-2031 Capital Investment Plan. Provided resources to gather public input and worked with staff from metropolitan planning organizations to host virtual public meetings about the draft CIP.
- Worked with the Executive Office for Administration and Finance to incorporate MassDOT information into the FY27 update of the Administration's CIP (inclusive of all state agencies)
- Made presentations to the MassDOT Board of Directors, its committees, and the public.
- Responded to CIP-related information requests from MassDOT and external stakeholders.
- Worked with software managers and developers on the requirements and specifications for an "eCIP" software application to manage CIP budget, project, and spending data.
- Continued to refine the Web-based CIP ESRI StoryMap and used PowerBI to create interactive data visualizations displaying CIP funding sources and spending.
- Continued to review, refine, and explore additions to the methodologies used for the CIP equity analysis.
- Developed reports for tracking federal competitive grant opportunities for transportation and supported MassDOT coordination related to applications for funds.
- Added additional information to the main data sheet such as discretionary grants, and earmarks that apply to individual funding streams, as well as location and mapping information.
- Continued to implement improvements to streamline the CIP development process and maintained or updated related documentation.

**Proposed activities for next year:**

- Coordinate the development of the SFY 2028-2032 Capital Investment Plan
- Make presentations to the MassDOT Board of Directors, its committees, external stakeholders, and the public.
- Respond to CIP-related information requests.
- Continue to implement improvements to streamline and enhance the CIP development process, such as improvements to the equity analysis and tools for managing CIP budget, project, and spending data
- Support other capital planning-related initiatives, as needed
- Validate new eCIP software, by running CIP process in parallel for the new eCIP software and existing systems.

**Anticipated products:**

- SFY2028-2032 MassDOT Capital Investment Plan
- Responses to requests for information from within MassDOT and from external stakeholders

- Presentations and informational materials for the MassDOT Board of Directors, its committees, external stakeholders, and the public
- Updates to CIP tools and resources
- Updates to CIP documentation
- Updates to CIP-related Web content
- A tested and validated eCIP software system that can be used for future CIP cycles

**Estimated task completion:** 09-30-2027

**Estimated task budget: $286,939.16**

*Estimated staff salaries and benefits: $286,939.16*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Andrew Wang** | 100.0 |
| **Stephanie Abundo** | 100.0 |
| **Michelle Scott** | 80.0 |

# Geospatial Technology

## A.3 / GIS Coordination

**Task Lead:** Jose Simo

**Task Purpose:**

To work closely with each MassDOT Division; other state agencies, including MassGIS; municipalities; and regional agencies, including Metropolitan Planning Organizations (MPOs), to continually improve the delivery of GIS data and applications for all customers of the Commonwealth, ensuring better information and project delivery through a variety of systems and technologies. Work under this task will also involve participating in and contributing to the specialized coordination required to integrate OTP's GIS tools and platforms into agency-wide asset management inventories and processes. We will also represent MassDOT at various state, regional and national GIS user groups.

**Accomplishments in prior year:**

- Continued ongoing GIS coordination through a variety of correspondence and meetings.
- Completed working with Massachusetts Bay Transit Authority (MBTA) on building out the elevator cleaning application and bringing new assets into the tool.
- Completed working with the Rail & Transit Division on connecting with the Grants Plus database.
- Continued working with the MBTA and the Rail & Transit Division to incorporate their projects into the MaPIT
- Completed rebuilding the Engage tool for a more intuitive and informative application, related to outreach and environmental justice obligations.

**Proposed activities for next year:**

- All coordination activities performed in FFY 2026 are intended to continue throughout FFY 2027. The level of coordination needed will vary throughout the year, based on particular issues or efforts to support all GIS tasks and projects.
- Continue working with the Highway Division on their VueWorks GIS integration
- Continue working with the Highway Division on replacing the Outdoor Advertising database and deployment of accompanying web applications.
- Begin working with MBTA and the Rail & Transit Division to bring the Rail Inventory into a Linear Referencing System for track and asset management
- Continuing to work with the Highway ROW Appraisals team on the development and deployment of ROW Appraisals application and collection of accompanying data layers from stakeholders

- Providing direct technical assistance and training opportunities to MA municipalities and MPOs relative to GIS organizational capacity building via the Learning Management System (LMS)
- Engage in planning and support activities for MassDOT and GIS Team conferences and events: MassDOT Innovation Conference, Moving Together, GIS Day, and 2027 AASHTO GIS-T

**Anticipated products:**

- Various products may be initiated through coordination with MassDOT Divisions, the MBTA, and municipal and regional governments.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $138,039.88**

*Estimated staff salaries and benefits: $138,039.88*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Jose Simo** | 100.0 |

## A.4 / GIS Platform Development

**Task Lead:** Shruti Venkatesh

**Task Purpose:**

To support the use of geographic information systems (GIS) for all MassDOT, MBTA, Metropolitan Planning Organization (MPO) and municipal staff. To ensure that there is continuous access to the GeoDOT platform; that users are able to work with all applications; and that GIS technology is kept current and operating efficiently with updated and reliable tools introduced throughout the year.

**Accomplishments in prior year:**

- Provided a variety of support services to the MassDOT Divisions, the MBTA, and municipalities including relevant applications for various agency staff.
- Produced applications key to daily operations and policy making within the agency including the Congestion Dashboard, FIFA operational dashboard, Outdoor Advertising Renewal Application.
- Worked on making the UAS vendor application operational.
- Continued building Esri Credits dashboard to monitor storage and credit usage.
- Completed integrating real-time data products into EDL Snowflake, making alerts data that is connected to the LRS available to more users across MassDOT and other agencies within the Commonwealth.
- Worked on configuring the new image server and built sustainable workflows to update image services.
- Continued support for deployment and management for MaPIT, Asset Projector, VueWorks, eGIS Viewer, eSTIP Viewer, Highway Operations Center Alerts Dashboard, eSTIP and SRTS related applications, Highway Layouts,
- Continued providing training and support to various business units throughout MassDOT, MBTA and various municipalities.
- Continued providing training and support to various business units throughout MassDOT, MBTA and various municipalities.
- Completed asset database integrations with Highway systems for bridges and ancillary structures
- Assisted MassDOT business units on GIS technology projects supported by external vendors by providing resources, training, documentation, and hosting technologies

**Proposed activities for next year:**

- Continue development and streamlining CIP module and reporting.
- Complete UAS vendor application and deploy to production
- Development and maintenance of GeoDOT will continue.
- Using new platforms for enhanced data visualizations and analysis.
- Websites will be created and updated as necessary.
- New applications will continue to be developed
- and updated throughout the year.
- Existing GIS applications will be updated and improved.
- Continue cloud hosting for our GIS platform.
- Support development activities for municipal assistance pilot program.
- Provide support for ITS management system.
- Scope and build IT infrastructure for in-house AI and imagery products that will be integrated into GIS Applications.
- Build and maintain more real-time data feeds using tools like Velocity and FME workbench for operational applications.

**Anticipated products:**

Various applications, web sites and web maps are expected to be created. Some of these include:

- The MaPIT application will be deployed with new functionality on the Experience Builder platform and hosted on GeoDOT.
- Continue improving application and incorporating accessibility into process workflows.
- Workflows to process new imagery products that will be incorporated into applications.
- Build and maintain infrastructure to expand in-house capacity for projects.
- Add additional functionality to existing IVW widget and build more imagery tools using NearMap.
- Update existing external applications in Experience Builder to meet accessibility requirements.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $4,646,934.72**

*Estimated staff salaries and benefits: $682,223.80*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Shruti Venkatesh** | 100.0 |
| **TPP IV (TBH)** | 100.0 |

| | |
|---|---|
| **TPP III (TBH)** | 100.0 |
| **Timothy Morrissey** | 100.0 |
| **Patrick McCafferty** | 100.0 |
| **IT Project Manager (TBH)** | 100.0 |

*Estimated other costs:* $3,964,710.92

*Other cost notes:*

- $110,000.00 - BlackShark (ISA w EOTSS)
- $209,892.38 - ESRI Pro Services for MaPIT
- $40,000.00 - Hardware/Software
- $3,510.36 - Intersection Manager (TBD)
- $103,565.15 - Orthoimagery (NV5) (ISA)
- $1,520.00 - Strategic Communications (Google)
- $43,000.00 - TransCAD (Caliper vendor)
- $64,991.66 - WRIKE subscription
- $129,062.51 - 1Spatial
- $1,609,030.00 - ESRI
- $656,962.41 - ROK Technologies LLC
- $12,174.26 - Konica Minolta Bus Solutions USA Inc. (KMBS)
- $300.00 - B&H Photo -Video, Inc
- $112,527.50 - Conveyal Renewal
- $540,921.38 - NearMap
- $50,960.27 - VertiGIS
- $20,000.00 - GeoJobe
- $234,293.04 - PMG STIP and EGIS Annual Maintenance for OTP
- $22,000.00 - GIS-T Registration and other costs
- $3,964,710.92 - TOTAL

## A.5 / GIS Services

**Task Lead:** Shruti Venkatesh

**Task Purpose:**

To provide maintenance and support of the GeoDOT Platform. Also, to provide a wide variety of standard and customized maps in support of MassDOT's operations for customers, maintain annual reports and catalogs, as well as provide post-production support and miscellaneous graphic design.

**Accomplishments in prior year:**

- The GIS Services Team continued to maintain the platform and user accounts of the GeoDOT platform as well as provide a wide variety of standard and customized maps for many internal and external customers on an ongoing basis.
- GeoDOT user accounts were created and maintained
- Staff responded to over 1,700 requests through Service Now alone related to GeoDOT accounts, licenses, and other technical assistance.
- Map and data catalogs were maintained and updated on schedule.
- GIS Services migrated items from Classic Storymaps to Storymaps due to Esri updates and product deprecation.
- GIS Services helped standup and configure the CIP hubsite with maximum accessibility compliance.
- Tracked key annual deliverables for GeoDOT and incorporated accessibility reviews to all deliverables.
- Worked on key graphics products for the AI peer exchange, MassDOT conferences, and GIS-T 2026.
- Released new Map Catalog that complies with accessibility requirements.
- Maintained hubsites and worked with GeoDOT platform users and OTP staff to make sure accessibility requirements were being met.
- Miscellaneous graphics support tasks performed frequently including the GeoDOT Local Hub Site.

**Proposed activities for next year:**

- Revamp and update existing Map Catalog and incorporate catalog into StoryMaps.
- Create automated workflows to create and administer GeoDOT accounts.
- Work with IT to configure Wrike Integrate to Service Now to track requests.
- Create metrics throughout ecosystem to track usage in AGOL, Applications, and other products.

- Support creating graphics and digital products for GIS-T 2027.
- Continue to maintain and expand the GeoDOT platform including additional content, new Hub sites to comply with accessibility requirements. and additional named user accounts.
- All standard and recurring mapping and data provision activities performed in 2026 are intended to continue throughout 2026 into 2027, as well as responding to specialized map and data

requests as needed.

- Continue to improve the MassDOT map library and increase access to MassDOT data resources and improve provision of transportation information to a larger audience.
- Continue to build and maintain the Mass.gov website for all Planning sections and projects.

**Anticipated products:**

- GIS Maps.
- Map Catalog.
- Miscellaneous graphic products and reports.
- Mobility hub within GeoDOT for regional and micro-mobility resources

**Estimated task completion:** 09-30-2027

**Estimated task budget: $227,399.30**

*Estimated staff salaries and benefits: $227,399.30*

***MassDOT Staff Assignments***

| MassDOT staff members | % Time to task |
|---|---|
| **Michael McGill** | 100.0 |
| **Argenis Cordones Sosa** | 100.0 |

## A.6 / Highway Performance Monitoring System (HPMS)

**Task Lead:** Charles Major

**Task Purpose:**

To update and maintain the Highway Performance Monitoring System (HPMS) data files in order to comply with Federal Highway Administration (FHWA) reporting requirements for the National Highway System (NHS) including Surface Transportation Block Grant Program (STBG) route mileage, system condition and performance, vehicle-miles of travel, highway functional classification, and administrative jurisdiction.

**Accomplishments in prior year:**

- Submitted the Certified Public Road Mileage of 2023 to FHWA on May 8, 2026, with an updated letter from Governor Maura Healey authorizing the Secretary of Transportation to approve public roadway mileage.
- The 2025 Interstate submittal was uploaded to the FHWA web site on April 3, 2026.
- The 2025 HPMS full submittal was uploaded to the FHWA web site on June 12, 2026.

**Proposed activities for next year:**

- All activities performed in FFY 2026 are intended to continue throughout FFY 2027, with any additional FHWA requirements added to the process as needed.
- Intend to submit the Interstate HPMS submittal by April 15th.
- Intend to submit the complete HPMS submittal by June 15th.

**Anticipated products:**

- 2025 Certification of Public Road Mileage - June 1, 2027.
- 2025 HPMS Interstate Submittal - April 15, 2027.
- 2025 HPMS Full Submittal - June 15, 2027.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $126,213.53**

*Estimated staff salaries and benefits: $126,213.53*

***MassDOT Staff Assignments***

| MassDOT staff members | % Time to task |
|---|---|
| **David DiNocco** | 100.0 |

## A.7 / Inventory Data Management

**Task Lead:** Charles Major

**Task Purpose:**

To provide MassDOT Divisions, the MBTA, other state agencies, municipalities and our public customers with comprehensive GIS data and enterprise GIS database management, as well as to ensure that all users can access needed data efficiently. We will also provide data and spatial analysis where needed. These databases house the authoritative GIS data layers for MassDOT including but not limited to highway assets (culverts, signs, ancillary structures, guard rails), roadway focused boundaries (urban transportation boundaries, RTAs, highway depots), facilities (MassDOT depots, rest areas), transit data (bus stops and Lines, rapid transit stations and lines), transportation focused environmental data (boring technical data, flood risk data), rail data (rail inventory, grade crossings, switches etc), and all roadway assets linked with the linear referencing system for the Massachusetts Road Inventory (jurisdiction, functional class, number of lanes, and all HPMS data) among others including application based procedural tables. This is the central back-end repository for authoritative GIS enterprise data at MassDOT.

**Accomplishments in prior year:**

- Performed data management tasks and projects supporting MassDOT Divisions, including many spatial databases.
- Completed several analysis projects including the CIP Equity Analysis.
- Developed new data products including the Traffic Inventory and Pavement Inventory.
- Performed a major upgrade to the Roads and Highways database schema to allow the use of attribute rules.
- Added several new event layers to the Roads and Highways database including Interchanges and REJ+.
- Refined and improved the data provided in the Road Inventory.
- Improved scripting for managing the network including all overnight data management processes.
- Developed Asset data management scheme to better manage Highway asset data.
- Provided technical consulting for various MassDOT business units to help support data development.
- Initialized Machine learning and Artificial Intelligence technology to classify road inventory attributes more efficiently.
- Created a prototype routable Road Inventory.

**Proposed activities for next year:**

- Data management tasks and projects performed in FFY 2026 are intended to continue throughout FFY 2027.
- Incorporate MIRE Data Elements into the data model including interchange type and several others.
- Update several events including street operation, number of lanes and speed regulations.
- Improve the routing capabilities within the prototype Road Inventory routable network.
- Increase new data development tasks to enhance our data portfolio.
- Develop and implement data quality control standards.
- Continue to finalize and build out a system-wide Rail network inventory.
- Expand the use of automated quality assurance tools.
- Continue to expand our workflows around classification and other ML/AI techniques to more efficiently collect and update data.

**Anticipated products:**

New data products and analysis will be completed this year, including: a better and more robust Routable Road Inventory; a complete Rail Inventory; an expansion of the Bicycle and Pedestrian Networks to include new attributions and more complete records.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $687,261.75**

*Estimated staff salaries and benefits: $687,261.75*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Charles Major** | 100.0 |
| **Sudip Paudel** | 100.0 |
| **Florence Person** | 100.0 |
| **Charlotte Mays** | 100.0 |
| **David Henriques** | 100.0 |
| **Nikhitha Yelukati** | 100.0 |
| **TPP III (TBH)** | 100.0 |

# Environmental, Social & Governance

## A.8 / Destination and Transportation Access

**Task Lead:** Nicole Bilbo

**Task Purpose:**

This task involves gathering data and developing resources that reflect existing or future conditions about the places that people can reach via the transportation network, and exploring access issues related to specific destinations, travel patterns, or outcomes.

**Accomplishments in prior year:**

Completion of the Climate PMO project; creation of critical destinations data layer; updating and expansion of the Service Coverage Planning Tool; updating of Accessibility Observatory Dashboard; and analysis in Conveyal and Replica for various projects.

**Proposed activities for next year:**

Updating critical destinations data layer; conducting Conveyal and Replica analysis on various planning and MassDOT projects; and creation and updating of tools and resources related to destination and transportation access.

**Anticipated products:**

New and updated data layers, resources, reports, and analysis related to destination and transportation access.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $128,791.86**

*Estimated staff salaries and benefits: $128,791.86*

***MassDOT Staff Assignments***

| MassDOT staff members | % Time to task |
|---|---|
| **Tiandra Ray** | 50.0 |
| **Jonah Williams** | 50.0 |
| **Nicole Bilbo** | 40.0 |

*Estimated consultant costs: $0.00*

## A.9 / Transportation Insecurity

**Task Lead:** Nicole Bilbo

**Task Purpose:**

This task includes activities related to building out MassDOT's portfolio of projects and processes that respond to needs of populations that are overburdened and underserved by transportation networks and services, including identifying transportation insecure populations and promoting projects that reconcile and mitigate challenges for families.

**Accomplishments in prior year:**

Completion of the second phase of the District Community Initiative in Highway District 3; the publication of the first issue brief on people with disabilities accessing transportation; the creation of the Regional eTOD Scores Dashboard; updating of the Community Transportation Explorer, parcel data, and socioeconomic projections data; and the start of the Community Self-Reported Needs project.

**Proposed activities for next year:**

The publishing of more issue briefs focused on transportation issues for vulnerable communities in the state; creation and updating of tools and resources on transportation insecurity; completion of the Community Self-Reported Needs project; starting a new phase of the District Community Initiative in Highway District 4; and beginning of the Massachusetts Students and Youth Transportation Survey.

**Anticipated products:**

DCI District 4 report; dashboards, research, reports, and analysis on transportation insecurity; and study report for the Community Self-Reported Needs project.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $128,791.86**

*Estimated staff salaries and benefits: $128,791.86*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Tiandra Ray** | 50.0 |
| **Jonah Williams** | 50.0 |
| **Nicole Bilbo** | 40.0 |

# MPO Activities

## A.11 / Implementation of Federal Programs and Regulations

**Task Lead:** Derek Shooster

**Task Purpose:**

Activities under this task will include the administration of the following discrete federal programs: Congestion Mitigation Air Quality Improvement Program (CMAQ), Federal Lands Access Program (FLAP), Scenic Byways, and Title VI strategies and compliance. This task will also include the administration of the Safe Routes to School (SRTS) education and infrastructure programs.

**Accomplishments in prior year:**

- CMAQ was administered successfully with two consultation committee meetings held and a full program of projects was identified for the State Transportation Improvement Program (STIP).
- The annual CMAQ report was completed and sent to FHWA to detail CMAQ obligations from FFY 2025.
- CMAQ analysis spreadsheets that incorporated new emissions factors from the MOVES Model

were developed and distributed to regional partners for their use at CMAQ Consultation Committee meetings.

- The MPO Activities section coordinated with MassDOT's Office of Diversity and Civil Rights (ODCR) to distribute Title VI report guidance and Title VI reports were received and reviewed by MPO Activities and ODCR staff.
- Federal Lands Access Program (FLAP) was administered successfully with the obligation of federal funds for previously identified projects. Project details for projects awarded in FFY 2025 were coordinated and implemented.
- The SRTS infrastructure program project solicitation was implemented, and six additional projects were awarded for programming in the 2027-2031 STIP. A process for a new project solicitation in FFY 2027 has been developed.
- MPO Activities staff continued to support regional partners' efforts to pursue funding through the federal Scenic Byways Program.
- Previously de-obligated Ferry Boat Program (FBP) funding was programmed for use in both the Boston Region and Southeastern Massachusetts Region for ferry boat projects.

**Proposed activities for next year:**

- Distribute CMAQ analysis spreadsheets to each metropolitan planning organization (MPO) for use in determining proposed CMAQ-funded projects' emissions reductions.

- Hold CMAQ Consultation Committee meetings.
- Compile notes from the CMAQ Consultation Committee meeting(s) and record new CMAQ-eligible projects.
- Complete annual CMAQ report submission to FHWA through the User Profile and Access Control System (UPACS).
- Work with the Eastern Federal Lands Highway Division (EFLHD) to coordinate activities related to FLAP project solicitation and selection.
- Work with the Office of Diversity and Civil Rights (ODCR) on any revisions to

the Title VI reports from the MPOs.

- Work on activities related to MassDOT's Virtual Public Involvement (VPI) initiatives.
- In support of the Highway Statistics 500-series reporting requirements, distribute a survey to all Massachusetts municipalities in order to obtain the information necessary to complete the Local Highway Finance Form (Form 536). Continue work to address discrepancies in MassDOT's Highway Statistics 500-series reporting.
- Continue to work with AECOM to support the administration of MassDOT's SRTS Program. Identify opportunities to perform more outreach in-house, and to assign some responsibilities to a co-op mid-year.
- Continue to implement the SRTS educational program focused on growing the number of participating schools, especially in underserved communities (staff and consultant).
- Continue to improve the SRTS infrastructure program and undertake a new project solicitation to fill the current FFY 2029 placeholder in the STIP.
- Host and/or lead SRTS pedestrian and bicycle events (e.g., walk/bike to school, safety trainings, etc.).
- Support the Highway Division in the design and construction of SRTS infrastructure projects that have been initiated and approved through the Division's Project Review Committee (PRC).
- Provide grant application assistance and coordination for any new Scenic Byway funding that becomes available.
- Coordinate all Ferry Boat Program (FBP) activities.

**Anticipated products:**

- The determination of CMAQ-eligible projects.
- The programming of new SRTS infrastructure projects.
- SRTS education and infrastructure program implementation.
- MPO Title VI Reports.

- Programming of awarded FLAP projects in coordination with the Eastern Federal Lands Highway Division (EFLHD).

**Estimated task completion:** 09-30-2027

**Estimated task budget: $94,626.26**

*Estimated staff salaries and benefits: $94,626.26*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Miranda Briseno** | 100.0 |

## A.12 / Metropolitan Planning Support and Oversight

**Task Lead:** Derek Shooster

**Task Purpose:**

Activities under this task include liaisons assisting in the development and oversight of MPO 3C certification documents such as Regional Transportation Plans (RTPs), Transportation Improvement Programs (TIPs), and Unified Planning Work Programs (UPWPs), and coordination and oversight of MPO planning deliverables through their respective UPWPs. Additionally, MPO liaisons will assist regional partners with target setting activities for required federal performance measures. MPO Activities staff will also assist with planning and corridor studies as needed.

**Accomplishments in prior year:**

- All thirteen regions within the Commonwealth drafted and endorsed UPWPs, TIPs, and RTPs that were submitted to federal partners for approval.
- Multiple amendments to TIPs and UPWPs were drafted and endorsed across all the MPOs, requiring oversight and administration by the MPO Activities Group.
- All thirteen regions adopted statewide safety performance measures (PM1), as required by the Federal Highway Administration (FHWA) for Calendar Year (CY) 2026.
- The MPO Activities group facilitated the development of contracts providing matching funds for the the planning regions receiving Safe Streets and Roads for All (SS4A) planning grants. Additional federal grants received by communities were placed onto UPWPs and TIPs as necessary.
- MPO liaisons coordinated with MPOs that have implemented discretionary TIP funding programs (e.g. CTPS's Community Connections Program and CMRPC's microprojects program) to ensure projects funded through these programs were implemented properly. Other creative ideas for the use of TIP funding were coordinated with applicable regions.
- Various memoranda of understanding (MOUs) were developed and endorsed by applicable stakeholders.
- Managed contracts for regional programs and projects.
- Participated in federal certification reviews.

**Proposed activities for next year:**

- All thirteen regions within the Commonwealth will draft and endorse 3C documents, including TIPs and UPWPs.

- All thirteen regions within the Commonwealth will receive guidance and embark on coordinated updates of their long range transportation plans, a two-year effort spanning FFY 2027 and 2028.
- The MPO Activities group will coordinate the setting of Federal Highway Administration (FHWA) performance targets for Calendar Year (CY) 2027 safety measures (PM1) and will review any relevant federal reporting associated with the PM2 and PM3 measure areas.
- MPO liaisons will work with their respective MPO partners to ensure the development of 3C documents according to schedule.
- MPO liaisons will also work with their respective MPO staffs to continue the delivery of planning activities programmed within UPWPs and look towards ways of improving the utility and quality of MPO staff-produced planning products.
- Work will continue on ensuring that all matching funds for SS4A planning grants are administered properly and that all necessary contracts for projects under discretionary TIP programs are developed.
- Participation in federal certification review processes as needed.
- Participation in regional and state planning studies and working groups as needed.
- Manage contracts for regional programs and projects when necessary.

**Anticipated products:**

Most activities are ongoing throughout the year; TIPs and UPWPs will be developed by summer 2027 with approval by reviewing partners before the start of FFY 2028.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $197,931.95**

*Estimated staff salaries and benefits: $197,931.95*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Samuel Taylor** | 100.0 |
| **Christina Mendoza** | 100.0 |

## A.14 / State Transportation Improvement Program Coordination and Capital Planning Support

**Task Lead:** Derek Shooster

**Task Purpose:**

Work under this task involves supporting the development of the annual Capital Investment Plan (CIP) update (see Task A.2 "Capital Planning Development and Coordination," for more details) and leading the development of the Federal Fiscal Year (FFY) 2028 - 2031 State Transportation Improvement Program (STIP) update. Work also includes the oversight and internal/external coordination of an electronic STIP (eSTIP) application. The STIP is a financially constrained document that contains a listing of all federally funded transportation projects in the Commonwealth of Massachusetts. It is a combined effort among MassDOT, Metropolitan Planning Organizations (MPOs), Regional Transit Authorities, and a number of state agencies that work to design and build highways and transit projects.

**Accomplishments in prior year:**

- Coordinated the maintenance of the FFY 2026-2030 STIP.
- Produced the FFY 2027-2031 STIP accounting for apportionments and programs under the Bipartisan Infrastructure Law (BIL).
- Supported the production of the SFY 2027-2031 CIP Update.
- Continued to implement the electronic STIP (eSTIP) application.
- Assisted with the coordination and programming of special federal-aid sources.
- Continued efforts to integrate FHWA's FMIS System into eSTIP to better track actual obligations.

**Proposed activities for next year:**

- Support the State Fiscal Year (SFY) 2028-2031 CIP and associated mapping, analysis, and public engagement activities.
- Lead the development of the FFY 2028-2032 STIP and incorporate any new information and guidance materials coming from the BIL.
- Coordinate the maintenance of the FFY 2025-2029 STIP.
- Develop and coordinate responses to any federal planning findings on the STIP on a quarterly basis.
- Assist with the coordination and programming of special federal-aid sources.
- Continue incorporating transit projects into eSTIP.

- Serve as the Project Champion for a research study, "Massachusetts Bicycle Facility Maintenance Analysis" to inform future investment needs/opportunities of our bicycle & pedestrian expansion program.
- Manage consultant on the development and migration of eSTIP tool to next phase of software, STIP Core. Participate in coordination meetings with consultant, ensure new tool (anticipated to take 9 months to develop) will be ready for roll-out at start of FFY 2028.
- Train all MassDOT STIP development stakeholders (Highway Division, OTP, RTD, FAPRO), thirteen regional planning agency staffs, fifteen regional transit authorities, the MBTA, and federal partners on using STIP Core ahead of FFY 2028 rollout.

**Anticipated products:**

- FFY 2028-2032 STIP.
- eSTIP application process improvements.
- STIP Core application product and onboarding guide book for planning software.
- SFY 2028-2032 CIP Assistance.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $665,435.39**

*Estimated staff salaries and benefits: $90,435.39*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Derek Shooster** | 80.0 |

*Consultant costs: $575,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Upgrade to STIP Core for STIP Development / TBD** | $0.00 | $0.00 | $575,000.00 | $0.00 | TBD | None | None |

# Municipal Planning and Support

## A.15/ Municipal Planning and Support

**Task Lead:** Derek Krevat

**Task Purpose:**

MassDOT's Municipal Planning and Support Team assists municipalities in accessing federal and state transportation funding by helping communities identify, develop, and advance priority transportation infrastructure projects. The team provides technical assistance, guidance, and coordination support throughout the project development process, including early-stage planning and design, grant application development, match funding coordination, award contracting, and post-award implementation. This work is particularly important for rural communities, Gateway Cities, and other small or under-resourced municipalities that may have limited capacity to pursue competitive funding opportunities or navigate state and federal project delivery requirements. The team supports municipalities through a range of programs and services, including the Local Early Actionable Planning (LEAP) Program, federal discretionary grant assistance, Congressionally Directed Spending support, and other state and federal funding coordination efforts. In addition, the Municipal Speed Feedback Signage Program, other materials procurement programs, and initiatives requiring direct municipal coordination are critical components of the team's work. These efforts help communities access safety-related equipment, implement locally important transportation improvements, and coordinate effectively with MassDOT divisions, Regional Planning Agencies, the Federal Funds and Infrastructure Office, federal partners, vendors, and other stakeholders. The need for this work is driven by the increasing complexity and competitiveness of transportation funding programs, the varied capacity of municipalities across the Commonwealth, and the need for consistent coordination between local, state, and federal partners. By providing centralized support, targeted technical assistance, and hands-on municipal coordination, the Municipal Planning and Support Team helps communities overcome barriers to project development and delivery, improves readiness for federal and state investment, and supports the advancement of transportation projects and safety initiatives that address mobility, equity, resilience, economic development, and roadway safety needs.

**Accomplishments in prior year:**

- Successfully launched and implemented the Local Early Actionable Planning (LEAP) Program, establishing intake, review, and coordination processes to provide targeted planning and design assistance to municipalities advancing priority transportation projects.
- Advanced more than twenty early-stage planning projects through LEAP, while coordinating with Regional Planning Agencies, municipalities, consultants, and internal MassDOT stakeholders to ensure communities received appropriate and actionable support.

- Expanded the LEAP project pipeline through direct outreach to municipalities and Regional Planning Agencies, incorporated partner feedback into program implementation, and began developing future project slates based on municipal needs and submitted requests.
- Supported municipalities and regional partners in developing more than two dozen federal grant applications, including applications under Safe Streets and Roads for All and the BUILD Program, by identifying candidate projects, conducting outreach, preparing application materials, coordinating letters of support, and securing state match funding approvals.
- Helped municipalities achieve strong federal grant outcomes, including support for FY 2025 Safe Streets and Roads for All awards to 14 municipalities, with 10 of those applications initiated and supported by the Municipal Planning and Support Team and coordinated for state matching funds.
- Provided direct technical assistance to municipalities advancing projects funded through federal discretionary grants and Congressionally Directed Spending, helping communities navigate MassDOT and federal processes, complete contracting requirements, and move projects toward obligation and implementation.
- Led or contributed to major transportation funding and planning efforts, including the North South Rail Link, Morrissey Boulevard, the Northern Tier Corridor, and other locally and regionally significant priority projects.
- Strengthened municipal engagement statewide, with a focus on small and under-resourced communities, through targeted outreach, follow-up meetings, community tours, and ongoing coordination with Regional Planning Agencies, the Federal Funds and Infrastructure Office, and MassDOT divisions.
- Organized and supported multi-stakeholder coordination meetings to help municipalities address complex transportation challenges, including roadway safety, crash-prone corridors, bridge preservation, ferry funding, utility coordination, and other project delivery needs.
- Developed and implemented MassDOT's Municipal Speed Feedback Signage Program, establishing a repeatable municipal request process, creating memoranda of agreement, coordinating procurement and installation requirements, and partnering with MassDOT Legal, the Highway Division's Traffic Safety Section, GIS staff, and vendors.
- Advanced the Municipal Speed Feedback Signage Program to implementation, with more than 250 speed feedback signs approved and ordered for municipal distribution, municipal trainings organized on sign setup and data collection, and a speed data dashboard prepared to support future safety analysis.
- Maintained and improved MassDOT's internal federal grants tracking database, providing regular updates to key stakeholders on federal grant opportunities, awards, deadlines, and program developments.

- Improved internal processes for federal grant tracking, municipal funding agreements, and grant-related contracting to streamline project delivery, support timely flow of federal funds, and increase municipal readiness for future funding opportunities.
- Coordinated debriefs, tracked federal grant outcomes, and documented lessons learned from prior application rounds to strengthen future application strategies and better align local priorities with state and federal funding opportunities.
- Represented MassDOT and the Municipal Planning and Support Team at conferences, working groups, and peer forums, including the Moving Together Conference, AASHTO, AMPO, Massachusetts Municipal Association Connect351, the MassDOT Innovation Conference, and USDOT working groups.

**Proposed activities for next year:**

- Continue providing direct technical assistance to municipalities, particularly rural communities, Gateway Cities, and under-resourced communities, to help identify, develop, and advance priority transportation infrastructure projects.
- Continue implementation of the Local Early Actionable Planning Program, including management of active projects, coordination with consultants and municipalities, review of deliverables, and advancement of the next round of early-stage planning and design projects.
- Support municipalities in preparing competitive applications for federal and state transportation funding opportunities, including discretionary grant programs, Congressionally Directed Spending, and other funding sources that align with local and regional priorities.
- Provide post-award support to communities with awarded federal funds, including assistance with contracting, match funding coordination, obligation requirements, implementation steps, and coordination with MassDOT, FHWA, USDOT, and other partners.
- Launch and manage a new round of municipal materials procurement programs in coordination with the Highway Division, building on the Municipal Speed Feedback Signage Program and other efforts that provide safety-related equipment and implementation support to communities.
- Continue coordination with municipalities on safety-focused initiatives, including speed management, crash-prone corridors, signage, data collection, and other locally identified roadway safety needs.
- Strengthen collaboration with Regional Planning Agencies, the Federal Funds and Infrastructure Office, MassDOT divisions, FHWA, USDOT, and other stakeholders to better align municipal project needs with available funding and delivery pathways.

- Maintain and improve internal federal grant tracking tools, monitor grant outcomes, document lessons learned, and use debriefs and partner feedback to strengthen future municipal grant applications and project delivery strategies.

**Anticipated products:**

- Executed deliverables for planning and design support under the LEAP Program (e.g. alternatives analyses, conceptual design plans, traffic studies, etc.)
- Completed federal grant applications and supporting documentation (e.g., letters of support, match commitments) for federal grant programs.
- Updated municipal grant tracking tools and dashboard in coordination with FFIO.
- Best practice guides for popular federal grant programs to provide municipalities with information related to success stories of other communities in Massachusetts, common challenges, and other information addressing frequently asked questions.
- Guidance materials for municipalities receiving Congressionally Directed Spending to support timely obligation.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $384,966.80**

*Estimated staff salaries and benefits: $384,966.80*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Derek Krevat** | 100.0 |
| **Leah Pickett** | 100.0 |
| **Noah Harper** | 100.0 |
| **Lily Wallace** | 100.0 |

# Multimodal Planning

## A.16 / Bicycle and Pedestrian Planning

**Task Lead:** Peter Sutton

**Task Purpose:**

To provide continued support for bicycle and pedestrian planning activities in Massachusetts in order to promote healthy, safe, and accessible non-motorized transportation options. This task will serve to continue implementation and advancement of the recommendations of the Statewide Pedestrian Plan, the Statewide Bicycle Plan, and Beyond Mobility - The Massachusetts 2050 Transportation Plan.

Additional work under this task will involve providing assistance to MassDOT Highway District offices, MPOs, local governments, community-based organizations, and advocacy efforts in order to encourage, educate, plan, and design pedestrian and bicycle facilities.

**Accomplishments in prior year:**

- Organized and participated in Moving Together 2025.
- Organized and attended the Massachusetts Bicycle and Pedestrian Advisory Board Meetings.
- Organized and attended MassTrails Team Meetings.
- Continued implementation of the Bicycle and Pedestrian Plans.

**Proposed activities for next year:**

- Organize and participate in Moving Together 2026.
- Organize and participate in Bay State Bike Week 2027 (staff).
- Organize and attend the Massachusetts Bicycle and Pedestrian Advisory Board Meetings (staff).
- Organize and attend the MassTrails Team Meetings (staff).
- Continue to oversee and participate in OTP-specific implementation activities of the Statewide Bicycle and Pedestrian Plans (staff).
- Work with Highway Division and other parties to initiate projects from the Next Generation of Bike and Ped Project Prioritization

**Anticipated products:**

- Moving Together Conference 2026.
- Bay State Bike Week 2027.
- Continued Implementation of Massachusetts Statewide Bicycle and Pedestrian Plans.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $126,213.53**

*Estimated staff salaries and benefits: $126,213.53*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Peter Sutton** | 100.0 |

## A.17 / Corridor Planning Studies

**Task Lead:** Ethan Britland

**Task Purpose:**

To perform, participate in, and manage several types of transportation planning studies, conducted either internally or by other entities, such as regional planning agencies and other MassDOT Divisions. The level of involvement is project-specific and includes activities such as study development and analysis, public participation, coordination, technical assistance, and review. Often, these studies are part of the standard planning, design, and environmental processes required to advance a transportation project forward to implementation.

**Accomplishments in prior year:**

- Continued the Newton Corner Long-Term Planning Study (non-SPR funded for consultant costs).
- Continued the Maurice J. Tobin Bridge Long-Term Strategic Planning Study (non-SPR funded for consultant costs).
- Procured and initiated the Resiliency Framework for the Metropolitan Highway System study. (non-SPR funded for consultant costs).
- Procured and initiated the Independent Cost and Engineering Analysis of the MassDOT Allston Multimodal Transportation Project (non-SPR funded for consultant costs).
- Procured and initiated the Framingham Route 126-135 Intersection Study (non-SPR funded for consultant costs).

**Proposed activities for next year:**

- Complete the Newton Corner Long-Term Planning Study. (non-SPR funded for consultant costs).
- Complete the Maurice J. Tobin Bridge Study Long-Term Strategic Planning Study. (non-SPR funded for consultant costs).
- Complete the Resiliency Framework for the Metropolitan Highway System study. (non-SPR funded for consultant costs).
- Complete the Independent Cost and Engineering Analysis of the MassDOT Allston Multimodal Transportation Project (non-SPR funded for consultant costs).
- Conduct the Framingham Route 126-135 Intersection Study (non-SPR funded for consultant costs).

**Anticipated products:**

- Tobin Bridge Study Long-Term Planning Study final report. (non-SPR funded for consultant costs).
- Newton Corner Long-Term Planning Study final report. (non-SPR funded for consultant costs).
- Resiliency Framework for the Metropolitan Highway System study final report. (non-SPR funded for consultant costs).
- Independent Cost and Engineering Analysis of the MassDOT Allston Multimodal Transportation Project final report (non-SPR funded for consultant costs).

**Estimated task completion:** 09-30-2027

**Estimated task budget: $860,185.36**

*Estimated staff salaries and benefits: $395,402.27*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Patrick Snyder** | 100.0 |
| **Rachel Kelly** | 100.0 |
| **Ethan Britland** | 80.0 |
| **Makaela Niles** | 60.0 |

*Estimated consultant costs: $464,783.09*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Newton Corner Long-Term Planning Study (non-SPR funded for consultant costs) / 123604** | $1,104,168.00 | $0.00 | $0.00 | $0.00 | Vanasse Hangen Brustlin Inc. | 11-22-2023 | 12-31-2026 |
| **Maurice J. Tobin Bridge Long-Term Strategic Planning Study (non-SPR funded for consultant costs) / 125961** | $2,453,956.00 | $0.00 | $0.00 | $0.00 | Vanasse Hangen Brustlin Inc. | 06-17-2024 | 06-30-2027 |
| **Resiliency Framework for the Metropolitan Highway System (non-** | $1,304,498.00 | $0.00 | $0.00 | $0.00 | HNTB | 12-15-2025 | 06-14-2027 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SPR funded for consultant costs) / 132818** | | | | | | | |
| **Framingham Route 126-Route 135 Intersection Study (non-SPR funded for consultant costs) / None** | $1,400,000.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **Independent Cost and Engineering Analysis of the MassDOT Allston Multimodal Transportation Project (non-SPR funded for consultant costs). / 133888** | $1,399,870.78 | $0.00 | $0.00 | $0.00 | Arcadis | 06-30-2026 | 06-30-2027 |
| **Reserve for MassDOT priority studies / None** | $464,783.09 | $0.00 | $464,783.09 | $0.00 | | None | None |

*Consultant notes:* Tobin Bridge Study funded with  Tobin Toll Revenue funding (non-SPR funded) Newton Corner Study funded with NFA (non-SPR funded) Resiliency Framework for the Metropolitan Highway System Study (non-SPR funded) Framingham Route 126-135 Study (non-SPR funded) Allston Cost and Engineering Analysis (non-SPR funded)

## A.18 / CTPS Annual On-Call Planning Assistance

**Task Lead:** Bob Frey

**Task Purpose:**

To expeditiously provide recurring technical and miscellaneous staff support for travel modeling, data management, planning studies and other related tasks. Tasks assigned to the Central Transportation Planning Staff are intended to support OTP's function as a shared/enterprise service for MassDOT.

**Accomplishments in prior year:**

Ongoing and recurring tasks including Road Inventory support, travel model assistance, and miscellaneous study support.

**Proposed activities for next year:**

Ongoing and recurring tasks including Road Inventory support, travel model assistance, and miscellaneous study support.

**Anticipated products:**

Road Inventory support and maintenance.

Statewide Travel Demand Model assistance, development/updates, applications, and data. Emissions modeling assistance. Miscellaneous studies and related assistance.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $425,000.00**

*Estimated staff salaries and benefits: $0.00*

*Consultant costs: $425,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Statewide Planning Assistance (CTPS) / TBD** | $425,000.00 | $0.00 | $425,000.00 | $0.00 | CTPS | 10-01-2026 | 09-30-2027 |

## A.19 / Freight Planning

**Task Lead:** Makaela Niles

**Task Purpose:**

To continue to implement immediate infrastructure and policy strategies recommended in the approved Massachusetts Freight Plan. Other annual activities include 1) monitoring and responding as needed to multimodal freight trends, funding opportunities, legislation and rulemaking, and 2) participation in regional and national freight coordination efforts.

**Accomplishments in prior year:**

- Continued to explore implementation strategies from the approved Massachusetts Freight Plan as applicable.
- Initiated the process and conducted a new Massachusetts Freight Plan
- Continued to monitor freight trends.
- Continued to participate in the Freight Operations Group
- Continued to monitor Notices of Funding Opportunities, legislation, and rulemaking.
- Continued to participate in regional and national freight coordination efforts.
- Supported the freight planning activities of MassDOT Divisions as needed.

**Proposed activities for next year:**

- Conduct and complete the 2027 Massachusetts Freight Plan (staff and consultant support)
- Continue to explore implementation strategies from the approved Massachusetts Freight Plan as applicable.
- Continue to monitor freight trends, including those related to truck parking and congestion mitigation.
- Continue to participate in the Freight Operations Group.
- Continue to monitor Notices of Funding Opportunities, legislation, and rulemaking.
- Continue to participate in regional and national freight coordination efforts.
- Support the freight planning activities of MassDOT Divisions as needed.

**Anticipated products:**

- 2027 Massachusetts Freight Plan

**Estimated task completion:** 09-30-2027

**Estimated task budget: $333,577.25**

*Estimated staff salaries and benefits: $33,577.25*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Makaela Niles** | 30.0 |

*Estimated consultant costs: $300,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **2027 Massachusetts Freight Plan / None** | $500,000.00 | $0.00 | $300,000.00 | $0.00 | TBD | None | None |

## A.20 / On-Call Contracts

**Task Lead:** Makaela Niles

**Task Purpose:**

To procure and employ Five (5) consultant contracts for on-call services in order to expeditiously initiate and conduct planning-level assignments. The time frames of these assignments vary, ranging from short-term assignments, such as technical analysis of transportation data, to medium-term efforts, such as conceptual studies that may include a technical component along with coordination and interaction with other state agencies, advisory groups, stakeholders, and/or members of the public. These assignments are intended to support OTP's function as a shared/enterprise service for MassDOT, and also provide opportunities to examine and implement state of the art practices as part of our statewide transportation planning process.

**Accomplishments in prior year:**

- Scoped and procured 5 (five) new on-call services contracts
- Scoped and initiated new on-call contract assignments

**Proposed activities for next year:**

- Continue to scope and initiate new on-call contract assignments

**Anticipated products:**

- New On-Call Assignments

**Estimated task completion:** 09-30-2027

**Estimated task budget: $886,192.40**

*Estimated staff salaries and benefits: $11,192.42*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Makaela Niles** | 10.0 |

*Estimated consultant costs: $874,999.98*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Contract #1 - Vanasse Hangen Brustlin Inc. / 132657** | $500,000.00 | $163,013.79 | $168,493.10 | $168,493.11 | Vanasse Hangen Brustlin Inc. | 12-02-2025 | 09-30-2028 |
| **Contract #2 - HNTB / 132658** | $500,000.00 | $163,013.79 | $168,493.10 | $168,493.11 | HNTB | 12-12-2025 | 09-30-2028 |
| **Contract #3 - Stantec / 132660** | $500,000.00 | $163,013.79 | $168,493.10 | $168,493.11 | Stantec | 05-08-2026 | 09-30-2028 |
| **Contract #4 - STV / 132661** | $500,000.00 | $97,944.83 | $201,027.58 | $201,027.59 | STV | 12-09-2025 | 09-30-2028 |
| **Contract #5 - Cambridge Systematics / 132662** | $500,000.00 | $163,013.79 | $168,493.10 | $168,493.11 | Cambridge Systematics | 12-18-2025 | 09-30-2028 |

# Public Private Development Unit

## A.21 / Development Review, Coordination, Mitigation, Monitoring and Access Management

**Task Lead:** Lionel Lucien

**Task Purpose:**

1. To consult with and provide technical guidance to developers and project stakeholders on transportation policies, planning, and design issues during the development of private projects.

2. To provide reviews and evaluations of the anticipated transportation impacts of projects under the Massachusetts Environmental Policy Act (MEPA) and as part of the approval process for access permits issued by MassDOT.

3. To participate in activities to expedite the permitting process including review of 43D and Priority Development Site designations.

4. To secure appropriate multimodal mitigation benefits consistent with MassDOT policies and ensure that developers implement and follow up on their mitigation commitments, including issuance of Section 61 Findings, and monitoring of development reporting through the MassDOT/EEA Transportation Impact Assessment Guidelines.

5. To implement access management through review of canvasses related to the purchase, lease, or disposition of MassDOT-owned property or railroad right-of-way (ROW).

**Accomplishments in prior year:**

Conducted meetings to provide technical support to developers and their consultants as part of their Massachusetts Environmental Policy Act (MEPA) submissions and review processes.

Provided technical review and support on transportation issues for the environmental permitting of MassDOT/MBTA air rights projects.

Worked with MassDOT's Office of Real Estate and Asset Development (OREAD) and potential developers to provide assistance and guidance on development proposals.

Provided technical support on permitting and economic development issues to cities and towns that have adopted 43D Expedited Permitting.

Reviewed transportation-related grant applications for the Massachusetts Gaming Commission's grant mitigation program.

Issued Section 61 Findings for projects previously reviewed.

Provided support to developers in designing and implementing transportation demand management (TDM) programs.

Monitored recently built projects that received a Section 61 Finding from MassDOT using the Transportation Impact Assessment Monitoring Report (TIAMR) tool.

Reviewed ROW canvasses.

Implemented, in collaboration with Massport and the MBTA, a list of capital improvement projects to keep the Anderson Regional Transportation Center in a state of good repair.

**Proposed activities for next year:**

All review, coordination, mitigation, monitoring and access management activities performed in FFY 2025 (and listed in the accomplishments section) are intended to continue throughout FFY 2026, plus:

Collect developers' commitments to mitigation funds and monitor implementation of targeted study/improvements.

Update the 2014 Transportation Impact Assessment Guidelines for consistency with MassDOT policies and regulations.

Continue working with the MBTA on developing a better methodology to identify impacts to the transit system and make more realistic and implementable mitigation.

**Anticipated products:**

Internal staff coordination with MassDOT Divisions and the MBTA.

External staff coordination with Massport, HED, DCR and other agencies.

Approved research proposal and contracts for the Update of MassDOT/EEA Transportation Impact Assessment Guidelines.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $304,060.62**

*Estimated staff salaries and benefits: $203,360.62*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Lionel Lucien** | 100.0 |
| **William Simon** | 100.0 |

*Other costs:* $700.00

*Estimated consultant costs: $100,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **MassDOT/EEA Transportation Impact Assessment Guidelines Revision / TBD** | $500,000.00 | $0.00 | $100,000.00 | $400,000.00 | TBD | None | None |

*Consultant notes:* $100K in consultant costs budgeted for updates to the MassDOT/EEA TIA Guidelines

*Other cost notes:*

Urban Land Institute annual membership: $700

# Sustainable Transportation

## A.26 / Climate Adaptation Vulnerability Assessment

**Task Lead:** Jules Williams

**Task Purpose:**

To quantify flooding related risks to a range of critical transportation assets throughout the state using a rigorous methodology that integrates GIS tools, climate projections, and hydrologic and hydraulic models. The project will identify higher risk assets, communicate these to

divisions via summary analysis, a GIS web portal, and availability of raw hazard data. The project will also identify a resiliency solutions menu, provide ways of selecting and evaluating performance of resiliency alternatives, illustrate the application of this at case study locations, and identify opportunities for integrating findings into other MassDOT activities and possible improvements for future risk assessment analyses. This task supports implementation of Executive Order 569, MassDOT's Resiliency Improvement Plan, the State Hazard Mitigation Plan and MassDOT's strategic plan: Beyond Mobility.

**Accomplishments in prior year:**

Work continued on developing flood plain and erosion maps for the first HU8 watershed in Domain B. Revised peak flood flows for streams in Domain B modeled and added to the projects GIS portal. Completed hydraulic modeling of Domain B pooling features Completed hydraulic modeling of Connecticut River Main Stem standard cross sections Continued hydraulic modeling of Westfield watershed standard cross sections

**Proposed activities for next year:**

Continuing the development of floodplains, maps of erosive levels of concern, asset exposure and applying risk analysis.

**Anticipated products:**

- Floodplain maps of flooding depth and extent.
- Maps of erosive potential.
- Exposure identified for multimodal transportation assets.
- Risk quantified for multimodal transportation assets.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $59,632.09**

*Estimated staff salaries and benefits: $59,632.09*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Jules Williams** | 40.0 |

*Consultant costs: $0.00 (all consultant costs are non-S funded)*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Flood Risk Assessment / 106882** | $15,822,502.00 | $0.00 | $0.00 | $0.00 | WSP | 01-01-2020 | 12-30-2030 |

*Consultant notes:* Note future consultant costs are not SPR funded and not included here.

## A.27 / GHG Mitigation Analysis, Research, Guidance & Regulatory Requirements

**Task Lead:** Jules Williams

**Task Purpose:**

To support the Commonwealth's efforts to meet greenhouse gas (GHG) reduction goals. The scope of OTP's work under this task includes undertaking studies of GHG mitigation opportunities in Massachusetts; providing transportation planning input into state government efforts to develop, monitor and update the Commonwealth's Climate Policies; offering analysis related to MassDOT's role in reducing statewide emissions; supporting Metropolitan Planning Organizations' (MPO) GHG impact estimation and reporting; continuing to collect data related to on-road GHG emissions as well as MassDOT and MBTA emissions.

**Accomplishments in prior year:**

- Collected data from MassDOT divisions and developed estimate for annual MassDOT-MBTA GHG emissions.
- Supported MassDOT implementation of FHWA's GHG performance regulation until measure was vacated.
- Updated MassDOT's CRS as part of the STIP
- Drafted updates to the CRS, shared the update with MPOs, and submitted the updated CRS in the draft STIP.
- Continued to manage OCIR's contract with a consultant team for the development of the Comprehensive Climate Action Plan (CCAP)
- Updated summary of MassDOT MBTA GHG emissions data.
- Completed input updates, recalibration and re-estimation of the FHWA EERPAT Model
- Progressed planning study on Highway Asset Solar Photovoltaic (PV) Feasibility Study
- Developed initial project and travel data for future GHG analysis

**Proposed activities for next year:**

- Update internal dashboard for MassDOT MBTA GHG emissions data.
- Complete agency wide GHG emissions estimate
- Complete on-road GHG emissions estimate
- Update the CRS strategy in 2026 in collaboration with the MPO activities team to reflect pre FFY27 CRP expenditure.
- Complete the Highway Asset Solar Photovoltaic (PV) Feasibility Study

- Progress the "super drivers" analysis using RMV odometer reading data.
- Close out MassDOT support for OCIR CCAP development.
- Coordinate with the Executive Office of Energy and Environmental Affairs on the development of the new Clean Energy and Climate Plan, provide analysis and advice as required
- Initiate light vehicles analysis, to the extent that resources allow
- Update project level dataset for empirical GHG analysis, to the extent that resources allow
- Initiate work on empirical analysis of GHG impacts, to the extent that resources allow

**Anticipated products:**

- Annual GHG emissions estimates.
- Updated internal GHG dashboard
- Highway Asset Solar Photovoltaic (PV) Feasibility Study deliverables
- Updated CRS

**Estimated task completion:** 09-30-2027

**Estimated task budget: $245,915.80**

*Estimated staff salaries and benefits: $180,404.39*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Daisy Brown** | 100.0 |
| **Max Natanagara** | 50.0 |
| **Jules Williams** | 20.0 |

*Estimated consultant costs: $65,511.41*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Highway solar planning study / 128320** | $610,243.00 | $544,731.59 | $65,511.41 | $0.00 | TRC | 05-08-2025 | 11-30-2026 |

*Consultant notes:* Light vehicles GHG analysis will rely on on call support if required (so no value included here)

## A.28 / Low Emissions Vehicles, Fuels and Infrastructure

**Task Lead:** Max Natanagara

**Task Purpose:**

To provide planning studies and other analyses on issues related to low-emission vehicles and infrastructure. Increased adoption of low emissions vehicles and fuels is targeted as part of Massachusetts' efforts to reduce emissions. A range of policies are in place that seek to increase adoption of these technologies. This impacts MassDOT and the transportation system in a number of ways: changes in motor fuel excise revenues; demand for new kinds of refueling in different locations; changes in the kinds of signage needed on highways; changes in vehicle operating costs and associated incentives to drive and changes in the amount, types and locations of pollutants emitted; and requests for how the transportation network can support increased uptake of these technologies.

**Accomplishments in prior year:**

- Supported NEVI implementation team
- Developed draft executive dashboard and map with OTP-OPMI staff for displaying EV charging data
- Participated in discussions on forthcoming renewal of lease for MassDOT service plazas concerning EV charging infrastructure.
- Analyzed characteristics of MA drivers with no access to off-street parking

**Proposed activities for next year:**

- Improve and update EV charging executive dashboard
- Procure support for and begin work on study to inform MassDOT priorities in EV charging investments
- Continue supporting NEVI implementation team

**Anticipated products:**

- Interim deliverables for EV Charging Framework study, estimating demand and suitability of MassDOT sites
- Updated executive dashboard for EV charging

**Estimated task completion:** 09-30-2027

**Estimated task budget: $85,778.13**

*Estimated staff salaries and benefits: $85,778.13*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Max Natanagara** | 50.0 |
| **Jules Williams** | 20.0 |

*Estimated consultant costs: $0.00*

# Transit Planning

## A.30 / Transit Planning Studies

**Task Lead:** Jonathan Church

**Task Purpose:**

To perform, participate in, and manage several types of transit planning studies, conducted either internally or with other entities, such as municipalities, regional planning agencies/MPOs, the MBTA and other MassDOT Divisions. The level of involvement is project-specific and includes activities such as study development and analysis, public participation, coordination, technical assistance, and peer review. Often, these studies are part of the standard planning, design, and environmental processes required to advance a transportation project forward to implementation.

**Accomplishments in prior year:**

- Continued the Gilmore Bridge Mobility Improvements Study (non-SPR Funded for consultant costs).
- Completed in Q3 but reinitiated in Q4 of FFY 2026 due to unforeseen circumstances the Regional Rail Demand and Revenue Forecasting Tool (non-SPR Funded for consultant costs).
- Completed the RIDE Electric Vehicle Feasibility Study (non-SPR Funded for consultant costs).
- Continued the Water Transportation Study (non-SPR Funded for consultant costs).
- Continued the Bus Awareness for Non-Transit Riders Study (non-SPR Funded for consultant costs).
- Initiated and continued the Ferry Alternative Fuels Study.
- Initiated and continued the Orange Line Extension to Roslindale Village Feasibility Study.
- Initiated and continued the Commuter Rail Extension to Buzzards Bay Feasibility Study.
- Initiated and continued the Beverly Transit Support Services Project.
- Initiated and continued to draft scope of work for the Powder Mill Corridor Fixed Route Study for the towns of Acton, Concord, and Maynard
- Initiated and continued to draft scope of work coordination on draft scope of work with the Rail and Transit Division to conduct an exploratory study to learn about current practices in microtransit in the Greater Boston region.
- Initiated and began discussions on a potential new transit analysis project for either Q4 if FFY26 or Q1 of FFY27 for the Boynton Union Connect TMA.

**Proposed activities for next year:**

- Initiate the State Rail Plan update for the MassDOT Rail and Transit Division (non-SPR Funded for consultant costs).

- Continue and complete the Regional Rail Demand and Revenue Forecasting Tool (non-SPR Funded for consultant costs).
- Continue and complete the Gilmore Bridge Mobility Improvements Study (non-SPR Funded for consultant costs).
- Continue and complete the Water Transportation Study (non-SPR Funded for consultant costs).
- Continue and complete the Bus Awareness for Non-Transit Riders Study (non-SPR Funded for consultant costs).
- Continue and complete the Ferry Alternative Fuels Study (non-SPR Funded for consultant costs).
- Continue and complete the Orange Line Extension to Roslindale Village Feasibility Study.
- Continue and complete the Commuter Rail Extension to Buzzards Bay Feasibility Study.
- Continue and complete the Beverly Transit Support Services Project.
- Complete the scope of work and initiate the Powder Mill Corridor Fixed Route Study for the towns of Acton, Concord, and Maynard
- Complete the scope of work and initiate with the Rail and Transit Division to conduct an exploratory study to learn about current practices in microtransit in the Greater Boston region.
- Complete a scope of work and initiate a potential new transit analysis project for the Boynton Union Connect TMA.

**Anticipated products:**

- Regional Rail Demand and Revenue Forecasting Tool, task deliverables, updated final modeling tool and user guide (non-SPR Funded for consultant costs).
- Gilmore Bridge Mobility Improvements Study, task deliverables, Draft Report and Final Report (non-SPR Funded for consultant costs).
- Water Transportation Study, task deliverables, Draft Report and Final Report (non-SPR Funded for consultant costs).
- Bus Awareness for Non-Transit Riders Study, task deliverables, Draft Report and Final Report (non-SPR Funded for consultant costs).
- Ferry Alternative Fuels Study, task deliverables, Draft Report and Final Report.
- State Rail Plan, task deliverables, (non-SPR Funded for consultant costs).
- Orange Line Extension to Roslindale Village Feasibility Study, task deliverables, Draft Report and Final Report.
- Commuter Rail Extension to Buzzards Bay Feasibility Study, task deliverables, Draft Report and Final Report.
- Beverly Transit Support Services Project, task deliverables, Draft Report and Final Report.
- Powder Mill Corridor Fixed Route Study, scope of work, task deliverables, Draft Report and Final Report.

- Greater Boston Microtransit Study, scope of work, task deliverables, Draft Report and Final Report.
- Boynton Union Connect TMA transit analysis project, scope of work, task deliverables, Draft Report and Final Report.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $1,035,171.74**

*Estimated staff salaries and benefits: $391,983.34*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Patricia Cahill** | 100.0 |
| **Caleb Plummer** | 100.0 |
| **Arnav Chatterjee** | 100.0 |
| **Jonathan Church** | 80.0 |

*Estimated consultant costs: $643,188.40*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **State Rail Plan / TBD** | $500,000.00 | $0.00 | $333,333.33 | $166,666.67 | TBD | None | None |
| **Acton Area Fixed Route Transit Analysis / None** | $0.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **MA Regional Rail Demand Modeling Tool / 126037** | $1,520,000.00 | $0.00 | $0.00 | $0.00 | Steer Davies & Gleave Inc. d/b/a Steer | 10-28-2024 | 06-30-2027 |
| **Gilmore Bridge Mobility Improvements Study / 120926** | $1,459,808.00 | $0.00 | $0.00 | $0.00 | HNTB | 11-20-2023 | 03-31-2027 |
| **Bus Awareness for Non-Transit Riders / 126120** | $500,000.00 | $0.00 | $0.00 | $0.00 | RSG Inc. | 02-06-2025 | 10-31-2026 |
| **Water Transportation Study / 128535** | $1,250,000.00 | $0.00 | $0.00 | $0.00 | GEI Consultants | None | 12-31-2026 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Ferry Alternative Fuels Study / 133144** | $150,000.00 | $0.00 | $0.00 | $0.00 | Volpe National Transportation Systems Center | None | 04-30-2027 |
| **Orange Line Extension to Roslindale Village Feasibility Study / None** | $100,000.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **Commuter Rail Extension to Buzzards Bay Feasibility Analysis project / None** | $25,000.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **Beverly Transit Support Services Project / None** | $0.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **Greater Boston Microtransit Practices Study / None** | $0.00 | $0.00 | $0.00 | $0.00 | | None | None |
| **Reserve for MassDOT priority studies / None** | $309,855.07 | $0.00 | $309,855.07 | $0.00 | | None | None |

*Consultant notes:* Consultant costs to be paid under 5304 funding in FFY2027: Bus Awareness for Non-Transit Riders Study $500,000 Consultant costs to be paid under SPR funding in FFY2027: State Rail Plan $500,000 Consultant costs to be paid under NFA funding in FFY2027: Regional Rail Demand Modeling Tool $1,520,000; Water Transportation Study $1,250,000; Gilmore Bridge Mobility Improvements Study $1,459,808. Orange Line Extension to Roslindale Village Study $100,000; Commuter Rail Extension to Buzzards Bay Station Study $25,000. Consultant (Volpe Transportation Center) costs to be paid as a federal contract in FFY2027: Ferry Alternative Fuels Study $150,000.

# SPR I Part B

# Pavement Management

## B.1 / Statewide Pavement Management Activities

**Task Lead:** Edmund Naras

**Task Purpose:**

The objective of the Pavement Management Program is to responsibly manage the pavement portion of the highway transportation network. The program provides a rational and uniform system for evaluating roadway conditions in order to improve the effectiveness of pavement preservation and rehabilitation strategies. Additionally, it provides analytical and evaluation tools that assist administrators and project managers with methods to improve the consistency of decision-making and to formulate strategies to optimize pavement network performance and the allocation of resources.

**Accomplishments in prior year:**

- Managed vendor data collection of over 7000+ Miles for pavement distress, rutting, geometric, GPS, LiDAR and video data for the Interstate System, NHS, Numbered Routes and other highways under MassDOT jurisdiction as part of data collection services contract.
- Conducted Quality Assurance activities on 7000+ Miles of data to verify deliverables from Network Pavement Data Collection Services Contract for the Interstate, Non-Interstate NHS, State Numbered routes as well as other highways under MassDOT Jurisdiction.
- Current data deliverables including pavement distress, rutting, geometric, GPS, LiDAR and video data loaded onto web based viewing application for internal review before eventual rollout to production site for department wide access.
- Collaborated with UMass researchers using MassDOT LiDAR dataset to conduct cross slope analysis and extract other assets on limited access highways.
- Submitted Interstate and Non-Interstate NHS pavement data for the Highway Performance Management System (HPMS).
- Utilized the MassDOT Pavement Management modeling, forecasting & optimized project selection tool to identify and prioritize NHS pavement programs.
- Developed an optimized multi-year program for the Interstate and Non-Interstate NHS. Integrated optimized program into the rolling 5-year STIP.
- Participated in scoping meetings with District, Bridge, Environmental and Highway Design staff to screen $100+ Million NHS project locations to establish items outside of pavement scope, identify preservation candidates, and prioritize future programming.
- Updated list of state numbered highways for improvements as part of the Municipal Paving Program.

- Prioritized the sections by condition, NHS status, scope and other factors for rehabilitation over a five-year period.
- Performed correlation and certification on 12 pieces of equipment for ride quality testing utilized by Contractors, other Northeast State DOT's and MassDOT for Quality Control and Acceptance testing.
- Performed acceptance testing for ride quality on approximately 820+ lane miles.
- Monitored performance of EDC-2 High Friction Surfacing Projects statewide.
- Continued monitoring SHRP2 (R-26) pavement preservation sections on US Route 3.Segments were prioritized for preservation and a contract was awarded for this project.
- Reviewed approximately 300 projects at various stages of design.
- Research activities in High RAP mixtures will continue under ISA with HSRC
- Conducted performance testing on Hot-In-Place (HIR) samples under ISA with HSRC
- Evaluated proposed criteria from the results of the Balanced Mix Design work done under ISA with HSRC against current MassDOT hot mix asphalt (HMA) design.Balanced Mix Design testing protocols applied to all HMA mixtures approved by DOT.
- In accordance with EDC-7 goals for Environmental Product Declarations (EPDs), DOT notified contractors of EPDs will still be required for all mixtures going forward.

**Proposed activities for next year:**

- Continue oversight for collection of over 7000+ Miles of pavement distress, rutting, geometric, GPS, LiDAR and video data for the Interstate System, NHS, Numbered Routes and other highways under MassDOT jurisdiction as part of new data collection services contract.
- Utilize MassDOT Automated Pavement Data Collection Vehicle to supplement data collection of pavement distress, rutting, geometric, GPS, LiDAR and video data for roadways paved after collection by the vendor for integration into overall data set.
- Conduct Quality Assurance testing using new Automated Pavement Data Collection Vehicle/Equipment to verify deliverables from Network Pavement Data Collection for the Interstate, Non-Interstate NHS, State Numbered routes as well as other highways under MassDOT Jurisdiction.
- Conduct Quality Assurance activities on 7000+ Miles of data to verify deliverables from Network Pavement Data Collection Services Contract for the Interstate, Non-Interstate NHS, State Numbered routes as well as other highways under MassDOT Jurisdiction.
- Perform annual maintenance and upgrades on the Automated Pavement Data Collection Vehicle, Pavement Friction Tester and Bumper Mounted Profilers.
- Perform ride quality acceptance testing for all new construction, resurfacing and preservation projects using the Bumper Mounted Profilers.

- Use Pavement Management Data to finalize 2026-2030 STIP for Interstate and Non-Interstate NHS projects and revise\develop 2027-2031 STIP.
- Continue Municipal Paving Program, while emphasizing rehabilitation and preservation of the municipally owned Non-Interstate NHS roadways.
- Oversee Interdepartmental Service Agreement (ISA) with UMass Dartmouth for continued support of pavement management activities including correlation of data collection equipment, implementation of new technologies and test methods, develop innovative pavement mixture designs (Superpave 5) and evaluations with existing designs, assist with evaluating Bridge Waterproofing Mixtures (SSC-W), and assess Asphalt Pavement sustainability evaluation methodologies LCA and INVEST for MassDOT implementation.
- Conduct testing on High Friction Surfacing using Dynamic Friction Tester
- Pilot use of Type III micro-surfacing as a alternative to High Friction Surfacing Treatment
- Conduct testing on segregated pavements using Pavement Texture Meter
- Pilot program for high application tack coats utilizing spray pavers on HMA surfaces
- Mandate Environmental Product Declarations (EPDs) for all MassDOT HMA submittals
- Incorporate low-carbon transportation materials into future construction projects (I-195 Swansea-Somerset High-RAP with temperature reduction incentives).
- Collect IDEAL CT test results from all projects utilizing HiMA and HP mixtures for evaluation and future consideration as a QC pay factor with the assistance of HSRC, MassDOT's Research and Materials and the Construction Division.
- Collect and pilot Ride Quality Data on bridge decks to assess the feasibility of implementing ride quality standards as a QC pay factor

**Anticipated products:**

- Report on pavement condition data for Interstate, State-Maintained and NHS roadways and data required for the Highway Performance Monitoring System (HPMS).
- Optimized multi-year program for the Interstate and Non-Interstate NHS pavement construction and preservation programs.
- Generate list of municipal numbered highways in fair and poor condition for continued support of MassDOT’s Municipal Pavement Program for State Numbered Routes.
- Renewed contract for maintenance and software upgrades to the Pavement Management section’s pavement management database.
- Improvements to the web-based pavement management database software to improve PMS predictive modeling and project selection tools and integrate tracking of Federal Reporting measures.

- Execute contract for annual maintenance and upgrades on the Pavement Friction Tester and Bumper Mounted Profilers.
- Calibration and certification on all equipment used for MassDOT ride quality project acceptance testing.
- Establish acceptable frictional characteristics that can be included in MassDOT's specifications for High Performance Asphalt Overlays (HPOL) using Dynamic Friction Tester
- Establish guidelines for texture readings to quantify segregation in new construction pavements.
- Assess long-term performance improvements of high application tack coats on limited access highways
- Asphalt binder specifications that incorporate two new binder parameters to address age induced surface distresses.
- Determine performance of High RAP surface mixtures for high volume roads on pilot projects.
- Propose mixture design procedure, performance test(s), and pilot specifications for cold central plant recycling (CCPR), cold in-place recycling (CIR) and hot in-place recycling (HIR).
- Aging Protocol for a Balanced Mix Design that can be incorporated into MassDOT BMD.
- Review results of Superpave 5 pilot project on Route 5-Northampton and Whately for potential future implementation.
- Lab Trial Mixture Formula (LTMF) results for Waterproofing Preservation Surfaces (SSC-W) by conducting Flexural Beam Fatigue and Hamburg performance tests for approval.
- Lab Trial Mixture Formula (LTMF) results for High Performance (HP) mixtures by conducting Flexural Beam Fatigue and Hamburg performance tests for approval.
- ArcGIS Online-driven dashboard to allow Pavement Management and other stakeholders to interact with pavement data more effectively and make better informed decisions when prioritizing roadway improvement projects.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $1,291,527.44**

*Estimated staff salaries and benefits: $1,091,527.44*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Edmund Naras** | 100.0 |
| **Jonathan Smith** | 100.0 |
| **Cody Holemo** | 100.0 |
| **William Gutierrez** | 100.0 |

| | |
|---|---|
| **Stefan Kargakis** | 100.0 |
| **Liz Cruz-Falero** | 100.0 |
| **Subash Shahi** | 100.0 |
| **Steven Morin** | 100.0 |
| **James Pierce** | 100.0 |

*Estimated other costs:* $100,000.00

*Estimated consultant costs: $100,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Pavement management modeling, forecasting & optimized project selection for the Capital Investment Plan (CIP) / TBD** | $100,000.00 | $94,500.00 | $100,000.00 | $0.00 | Deighton Associates Ltd | 12-12-2025 | 12-31-2025 |

*Consultant notes:*

*Other cost notes:*

- Skid Truck annual maintenance and software upgrades -$40,000
- Bumper Mounted Profilers annual maintenance and software upgrades -$60,000
- TOTAL $100,000.00

# Statewide Traffic Data Collection

## B. 2 / Statewide Traffic Data Collection

**Task Lead:** Michelle Boucher

**Task Purpose:**

The MassDOT Highway Division's Traffic Data Collection (TDC) group is responsible for the development and maintenance of the Annual Traffic Data Collection Program. The program is designed in accordance with FHWA's Traffic Monitoring Guide (TMG), the AASHTO Guide for Statewide Traffic Data Collection Programs, and the Highway Performance Monitoring System (HPMS) guidelines. Traffic-derived travel data from the HPMS are used in the federal-aid highway fund apportionment formula. Traffic data are critical to the analyses that support the Condition and Performance Reports to Congress, which are subsequently used for national highway budgeting purposes. HPMS-derived travel data are required to meet Clean Air Act requirements, and travel data are central to estimating several of MassDOT's performance indicators such as vehicle crash and fatality rates and delay. Therefore, a traffic counting program is conducted each year by the Statewide Traffic Data Collection group of the MassDOT Highway Division. The counting program is modeled after FHWA's Traffic Monitoring Guide, AASHTO's Guidelines for Traffic Data Programs and, most importantly, the HPMS Field Manual. The annual program involves the systematic collection of traffic data utilizing automatic traffic recorders located on various roadways throughout the State. In addition, the Statewide Traffic Data Collection group provides traffic data for MassDOT's pavement, highway, and bridge design efforts. This includes pavement rehabilitation, construction, maintenance, and construction staging and traffic management. Data gathered in support of the Department's program varies from single road tube automatic traffic recorder (ATR) counts to intersection turning movement counts (TMC) for traffic signal design and vehicle type classification for pavement design and environmental analyses (air quality and noise levels). The TDC section has continued to explore and embrace different technologies that can be used to collect volume, speed and class data using radar and camera systems for permanent count stations and has been modernizing the short-term count equipment to include radar and camera technology. Further, TDC has been able to increase the availability of turning movement data at signalized intersections using Miovision cameras for detection. These sites have been upgraded to provide turning movement counts. Due to MassDOT's interest in accommodating all road users and measuring the performance of safety and mobility, TDC has continued to expand the pedestrian and bicyclist counter program and has increased the pedestrian and bicyclist counts available. MassDOT's desire to improve upon Weigh-In-Motion (WIM) data and technology to further assist the Commercial Vehicle Enforcement Section and improve safety is under way. Project 613696, Contract 132403 was awarded to Coviello Construction in February of 2026. Construction started this past season to expand and enhance 15 stations across the state. This technology will assist with pavement management and bridge evaluations and design. We understand

MassDOT needs to improve upon commercial motor vehicle inspection and weight data and will work towards meeting the goal of obtaining WIM data and providing FHWA and the Federal Motor Carrier Safety Administration (FMCSA) with necessary information. The intent of the new WIM Program is to collect the necessary WIM data to assist pavement management, permitting, RMV, and state police.

**Accomplishments in prior year:**

- All operational continuous count sites are monitored monthly.
- Field staff continued to perform maintenance and repairs to the continuous counting stations. This includes ensuring that the recorder is functioning properly and collecting valid data. Work includes cleaning in and around the cabinets as well as maintenance activities such as caulking, door filter replacement, pest removal and prevention, debris removal, vacuuming, weed whacking, weed killer application, branch trimming, touch up paint, solar repairs, bracket repairs, tightening foundation anchor bolts, sealing foundation entry conduit, lubricating hinges, locks, terminal wiring repairs, battery test, battery replacements, snow removal, etc. Cabinets unable to be repaired are replaced as necessary.
- July 2026 is the latest month submitted for the Travel Monitoring Analysis System (TMAS).
- Traffic Data Collection (TDC) staff plan to collect short-term volume, classification, and speed data where possible at the continuous count sites that are not operational and in accordance with the short-term coverage count program. This program includes 708 locations for this fiscal year.
- The ramps continued to be counted on the six year cycle and the TDC team is making plans to count the ramps in Boston along I-93 and I-90 that have not been counted since the tunnels opened.
- The TDC team continues to perform special counts upon requests from MassDOT project managers.
- The micro mobility count program is part of the ongoing program. Each year we continue to expand permanent stations at different locations across the state. These counts are supplemented with short-term counts. MassDOT is currently field-testing portable camera counters (purchased this year) to measure pedestrian traffic around the FIFA world cup at Gilette Stadium.
- The TDC team has an extensive excel spreadsheet which tracks the progress of continuous stations that are currently being installed through MassDOT's resurfacing program. At any time, there are as many as 50 or more stations that are in the process of being installed. There is an extensive life cycle between stations that are about to be taken offline due to mill and overlay operations, not working due to milling operations and going through installation and testing following repaving. The TDC team is working to replace loop stations with less intrusive

permanent count station equipment such as radar and cameras where in line with the TDC Strategic Plan.

**Proposed activities for next year:**

The focus of the TDC group is to continue to repair continuous permanent count stations that are no longer working, QA/QC continuous permanent count stations, in which daily data studies of class, volume, and speed will be uploaded and processed through MS2. This approach will significantly reduce the delay in delivering the data to TMAS and the annual HPMS reports. Field staff will continue to deploy short-term class portable counts on all functionally classified roadways including rural interstate roadways, which is a requirement of FHWA. All counts will be QA/QC prior to upload into MS2.

- In supporting HPMS requirements:
- Submit the 2026 AADT data.
- Submit data for collected ramp counts for 2026.
- Submit data for the special counts for 2026.
- Vehicle miles traveled (VMT) HPMS summary data for future year's submittal.
- Class factor portable class counts to properly annualize them.
- Class factor from year to year for any non-current year data so the HPMS data for SU and CU.
- Ensure AADT is part of the current year with each year's submittal.
- Run all data through MS2 and QA/QC before submitting the data into TMAS.
- Continuing short-term bicycle and pedestrian counts to support statewide planning needs.
- Expand permanent bicycle and pedestrian counter network with 4 to 6 new permanent count stations.
- Continue to bring in Miovision cameras installed at signals to provide turning movement counts in MS2.
- Continue to enhance the work zone impact analysis tool developed by Kittelson.
- Continue construction on the WIM station enhancement and expansion project. The first station on I-84 should be installed and working by April of 2027. Following this first station the construction contractor will continue to install the remaining 14 stations.
- Continue to modernize the short-term count program to include portable cameras and radar, so that high speed roadways can be counted without having to place road tubes across the roadway lanes but can be counted from the side of the road.

**Anticipated products:**

- Clustering Analysis - Seasonal, axle and growth factor grouping.

- Short Count Assignment - Factor group assignment for all short count stations.
- HPMS Traffic Data Reporting.
- Continue the use of the work zone impact analysis tool across all districts with project planning and design.
- Expand the permanent Bicycle and Pedestrian count program.
- Expand the short-term Bicycle and Pedestrian count program.
- Continue the construction of the WIM technology project.
- Implement the Statewide TDC Strategic Plan and use it as a guide.
- Continue improvement of all data through better QA/QC.
- Continue to repair permanent count stations that have been destroyed through repaving contracts.
- Develop standard specification and typical CAD drawings for traffic count stations.
- Develop a tool with IT for requesting special counts.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $2,843,063.31**

*Estimated staff salaries and benefits: $1,443,063.31*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Michael Ribeiro** | 100.0 |
| **Misrak Sultan** | 100.0 |
| **Lori Suss** | 100.0 |
| **Hector Monet** | 100.0 |
| **Wayne Schofield Jr.** | 100.0 |
| **Steve Robbins** | 100.0 |
| **Juan Nunez** | 100.0 |
| **Daniel Moy** | 100.0 |
| **Kenneth Horton** | 100.0 |
| **Claire King** | 100.0 |
| **Ryan Wykes** | 100.0 |
| **Charles Young** | 100.0 |
| **Ian Adams** | 50.0 |
| **Zachary Medeiros** | 25.0 |
| **Spencer Cullen** | 25.0 |
| **Michelle Boucher** | 25.0 |
| **Corey O'Connor** | 20.0 |

| | |
|---|---|
| **Neil Boudreau** | 5.0 |
| **Amy Getchell** | 5.0 |

*Estimated other costs:* $400,500.00

*Estimated consultant costs: $999,500.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **TrafInfo Consultant Contract / 116428** | $2,432,000.00 | $1,170,176.74 | $444,500.00 | $613,823.26 | TrafInfo | 03-07-2022 | 03-04-2028 |
| **Traffic Count Database, Proal and support/TBD** | $380,000.00 | $0 | $380,000.00 | $0.00 | Midwestern Software Solutions (MS2) | TBD | TBD |
| **Development of work zone impact analysis tool / 117018** | $848,000.00 | $470,000.00 | $100,000.00 | $0.00 | Kittleson & Associates | 05-11-2022 | 06-30-2027 |
| **Turning Movement Count (TMC) data collection and processing/TBD** | $75,000.00 | $0.00 | $75,000.00 | $0.00 | Miovision PDI | TBD | TBD |

*Consultant notes:* Existing TrafInfo Consultant Contract (Contract #116248) $444,500. Contract end date March 4, 2028. Midwestern Software Solutions (MS2) Traffic Count Database, Portal and support $380,000. Miovision (PDI) Turning Movement Count (TMC) data collection and processing $75,000. Kittelson contract 117018 expires 6/30/2027, $100,000. Total consultant Costs = $999,500.

*Other cost notes:*

- State Police Details to support counter installations ($125,000).
- Verizon Wireless service for continuous count stations ($100,000). Miscellaneous Equipment/Spare Parts:
- Miscellaneous supplies from Home Depot ($10,000).
- Miscellaneous supplies from Grainger ($1,000).
- National Grid/Mass Electric ($7,000).
- Comcast ($7,500).
- Batteries for all counting equipment ($10,000).
- Upgrades for count stations (tape, tubes, nails, etc) ($20,000) Bike/Ped/Micromobility program ($120,000)
- Total other costs: $400,500

# Survey

## B.3 / CORS Network Operation and Expansion

**Task Lead:** John Anthony

**Task Purpose:**

Work under this task will involve managing the Continuously Operating Reference Station (CORS) Network and accompanying website as well as supporting MassDOT departments, other state agencies, municipalities, planners, GIS users, and the architectural and engineering community on the use of the CORS Network. The Survey Section endeavors to expand the MaCORS Network by identifying suitable locations for the construction of additional CORS stations to expand and enhance the network.

**Accomplishments in prior year:**

As of June 2026 we have registered approximately 555 new subscribers for FFY2026. MassDOT was successful in finalizing the Memorandum of Agreement with the Town of Rockport which allowed for the subsequent installation of a new CORS at the Rockport Elementary School. The Martha's Vineyard CORS remote monitoring power system was successfully installed A full network adjustment of all stations was done including the newly constructed Rockport CORS. To maintain optimal alignment with the national spatial reference frame, all 23 MaCORS stations received updated coordinates adopting Multi-Year CORS Solutions 3 (MYCS3) positions with NAD83 (2011) EPOCH 2010.0. MassDOT submitted the new Rockport CORS to NGS requesting its acceptance into the NOAA CORS Network. We are still awaiting a response from NGS with regards to the site's acceptance as of the end of Q3 FFY26.

**Proposed activities for next year:**

Continue to register new subscribers to the CORS Network and perform equipment updates as may be necessary. Conduct a complete CORS Network Adjustment once the National Geodetic Survey (NGS) replaces the current North American Datum of 1983 (NAD 83) and North American Vertical Datum of 1988 (NAVD 88) with a modernized National Spatial Reference System (NSRS).

**Anticipated products:**

- The CORS network will receive all pertinent upgrades.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $193,086.75**

*Estimated staff salaries and benefits: $153,086.75*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Evanson Browne** | 60.0 |
| **John Barnes** | 15.0 |
| **John Anthony** | 10.0 |
| **Jeffrey Bruce** | 10.0 |
| **Mehdi Sadjady** | 10.0 |

*Other costs:* $40,000.00

*Other cost notes:*

Cable/Internet bills

## B.4 / Development and Training

**Task Lead:** John Anthony

**Task Purpose:**

To participate in national, regional, and statewide boards and conferences that promote continued professional development and training relative to GPS and the use of MassDOT's CORS Network. Attendance at these meetings will promote and help develop the statewide geodetic control network for statewide spatial data.

**Accomplishments in prior year:**

MassDOT staff attended seminars hosted by the National Geodetic Survey.

**Proposed activities for next year:**

Seek out and attend conferences and seminars relative to geospatial and location technologies that would be beneficial to MassDOT staff.

**Anticipated products:**

N/A

**Estimated task completion:** 09-30-2027

**Estimated task budget: $5,000.00**

*Estimated staff salaries and benefits: $0.00*

*Other costs:* $5,000.00

*Other cost notes:*

Other costs include travel expenses to attend development and training events

## B.5 / Geodetic Surveys for Statewide Project Control

**Task Lead:** John Anthony

**Task Purpose:**

The MassDOT Survey Section maintains a statewide network of permanent geodetic control markers that provide public and private surveyors access to the NAD 83/NAVD 88 horizontal and vertical geodetic survey control datums. The Survey Section utilizes these markers, in conjunction with the MassDOT CORS Network, to establish semi-permanent survey control stations on MassDOT bridge and roadway projects throughout the Commonwealth. NAD 83 and NAVD 88 are common and widely recognized geodetic datums. Their use for project control is essential to maintain consistency throughout the various phases of project planning, design, and construction. The network is also used by MassDOT's Office of Transportation Planning, MassGIS, private surveyors, and numerous municipal and state agencies for various engineering, surveying, and GIS applications.

**Accomplishments in prior year:**

Performed GPS observations and electronic bar-code leveling to establish NAD 83 and NAVD 88 project survey control for seventy-eight (78) bridge rehabilitation/reconstruction and highway reconstruction/improvement projects. Performed twenty-four (24) GNSS observations as part of the National Geodetic Survey's (NGS) GPS on Priority NGS Benchmarks program. The results from sixteen (16) of these FFY26 observations were published by NGS along with eight (8) observations from previous federal fiscal years.

**Proposed activities for next year:**

- Continue ongoing surveys to maintain and densify the statewide network of horizontal and vertical control stations.
- Continue to set project controls for various bridge rehabilitation/reconstruction, highway reconstruction/improvement, and photogrammetric mapping projects.
- Coordinate survey efforts and work with NGS as we prepare for the future adoption of new horizontal and vertical survey datums.

**Anticipated products:**

- Updated control point database and data card file enabling the MassDOT survey control point website to publish newly established controls to the public.
- Individual control reports for each MassDOT project to be distributed to end users.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $534,785.90**

*Estimated staff salaries and benefits: $534,785.90*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Arben Zhuri** | 50.0 |
| **Brian Knowles** | 50.0 |
| **Leo Scanlon** | 50.0 |
| **Eugene Tivnan** | 50.0 |
| **Evanson Browne** | 30.0 |
| **Jeffrey Bruce** | 30.0 |
| **Michael Roberts** | 30.0 |
| **Mehdi Sadjady** | 30.0 |
| **John Anthony** | 25.0 |
| **John Barnes** | 25.0 |
| **Michael Chouinard** | 20.0 |

## B.6 / GPS and Conventional Survey Equipment

**Task Lead:** John Anthony

**Task Purpose:**

To upgrade, maintain, and service MassDOT's GPS and conventional survey equipment to ensure accurate data collection and efficient data transmission to users.

**Accomplishments in prior year:**

Reviewed vendor responses to our survey equipment/supplies Request for Response (RFR). Selected five (5) vendors: DOT Fleet Parts, Keystone Precision, Maine Technical Source, Superior Products & Wachusett Survey Solutions to receive contracts and executed Contract # 132964 which included PC Encumbrances for each. The following purchases were made through the contract in FFY26: four (4) Leica GNSS rover/static receivers, one (1) Leica CORS GNSS reference receiver, one (1) Leica CORS GNSS choke ring antenna, four (4) Leica bar-coded fiberglass leveling rods with SECO bi-pods, two (2) Leica digital level replacement batteries, extensions and upgrades to warranty & support agreements for existing receivers/data collectors.

**Proposed activities for next year:**

Purchase survey equipment and supplies to replace/upgrade our current, ageing inventory and repair/service equipment as necessary.

**Anticipated products:**

Incidental survey supplies such as batteries, cables, prisms, nails, markers, and other survey and CORS Network equipment as needed.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $200,000.00**

*Estimated staff salaries and benefits: $0.00*

*Estimated other costs:* $200,000.00

*Other cost notes:*

This is an allocated amount for the purchase of field equipment (GPS receivers, level, total station, tripod legs, batteries, cables, prisms, etc.); supplies (stakes, nails, markers, paint, etc.); and equipment repairs/services as needed.

# Traffic Crash Records and Safety Management

## B.7 / Improved Crash Data and Safety on Massachusetts Roadways

**Task Lead:** Bonnie Polin

**Task Purpose:**

This work consists of improving data collection and dissemination through working with police, the Registry of Motor Vehicles (RMV), MassDOT's Office of Transportation Planning, and others to improve distribution efforts. MassDOT will work with consultants and MassDOT Information Technology (IT) to upgrade and improve data dissemination and assist with the development of an updated crash system so that an enhanced data-driven approach to safety can be utilized. Data-driven safety analysis will be required to reach the goal areas related to zero deaths and serious injuries. The data will then be used to develop and enhance a Safety Management System where effective and efficient programs and projects are identified, programmed and implemented. We then apply highway safety methodologies to define and refine projects and programs to reduce fatalities and serious injuries. This will all be identified through the Strategic Highway Safety Plan (SHSP) and the Highway Safety Improvement Program.

**Accomplishments in prior year:**

- Worked on developing enhancement to improve IMPACT (had meetings and discussions). During the full FFY2026 year, it is estimated, based interpolating the available months, we will have had a total of approximately24,000 users and 55,000 page views in IMPACT. We also started evaluating how to upgrade and enhance IMPACT.
- Continue geocoding crashes – During the full FFY2025 year (it is estimated and factored, based on the first 10 months), that we will have geocoded 146,000 crashes including 120,000 automatically geocoded and 26,000 manually geocoded.
- Continue providing data quality information to the RMV, including monthly rejection reports, police agency reporting levels, etc., We have been working closely with RMV on the Vulnerable Road User report and information to ensure quality.
- Completed the collection of the intersection data collection for Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements (FDE) in time for the Federal deadline.
- The updated crash based models and network screening models have been completed and posted into IMPACT for 2019-2023.
- Continue participating in meetings and activities of the Traffic Records Coordinating Committee (TRCC), Executive TRCC and subcommittees.

- Continue developing SPFs so that HSM methodologies can be utilized. (The design level SPF for ramp terminals rural segments, various intersection types and urban segments are complete. Work is being completed for CMFs for intersection control changes at ramp terminal and we needed to incorporate other stats to have an adequate sample size.
- During the full FFY2027 year, it is estimated, based on the first 10 months, MassDOT will have conducted 34 road safety audits (RSAs) this year throughout the Commonwealth to identify issues and propose recommendations so that data driven safety improvements can be made, whether in person or remote.
- The updated HSIP Guidelines were started and will be completed in FFY2027.
- Developed several systemic type projects where MassDOT procured materials and provided to the locals. Approximately $3M in RRFBs were provided to the locals for 242 locations I the earlier round. In FFY2026, the remaining ones were delivered (or will be by end of Auguust). Also, 2nd round of conversion from two-way stop to All-way stop at 49 intersections.We also provided speed feedback boards and static speed limit signs.
- The 2026 HSIP Implementation Plan was completed
- Developed and implemented the 2026 HSIP program to include infrastructure projects and non-infrastructure projects and focus on systemic approaches as well as VRU projects based on the results of the HSIP Implementation Plan.
- Completed the spatial information for the speed regulations so data can be posted for public consumption.
- Continue to assist with raising awareness of safety messaging. During the full FFY2026 year, it is estimated, based on the interpolating the available months, we will have had a total of nearly 600 pots on 4 social media platforms, 360,000 impressions with 13,000 engagements.
- Based on a STIC grant to Every Day Counts (EDC) Nighttime Visibility to Improve Pedestrian Safety Initiative, we are drafting our Pedestrian Crosswalk Scale Lighting Guide.
- Continue working with Safe System Intersection analyses and other Safe System methods to quantify safety.

**Proposed activities for next year:**

- Additional trainings on IMPACT and begin collecting feedback on additional needs to further enhance the MA Safety Management System. We have started gathering requirements in order to put out an RFP for a new contract to update/maintain IMPACT and to consider use of AASHTOWare Safety.
- Continue geocoding crashes and bringing them up to real time geocoding so that we can follow up with the police who prepared the crash report. This should also help to improve data quality.

- Continue providing data quality information to the RMV, including monthly rejection reports, police agency reporting levels, etc., in an effort to improve the data quality of the crash system.
- Develop the 2023 SHSP (dure to be completed in December 2023) but need to wait until after the election to delve into recommendations..
- Update the Top Crash Clusters and top crash locations (intersections and segments) using HSM methodologies.
- Continue participating in meetings and activities of the Traffic Records Coordinating Committee (TRCC), Executive TRCC and subcommittees.
- Continue developing and updating SPFs and CMFs so that HSM methodologies can be utilized.
- Conduct road safety audits (RSAs) throughout the Commonwealth to identify issues and propose recommendations so that data driven safety improvements can be made, whether in person or remote. We anticipate conducting over 40 RSAs and reviewing RSAs performed by others.
- Put in place and publicize guidance on HSIP eligibility.
- Develop several systemic type projects where MassDOT procures materials and provides to the locals.
- Roll out the 2027 HSIP program to include infrastructure projects and non-infrastructure projects and focus on systemic approaches based on the results of the soon-to-be-completed HSIP Implementation Plan.
- With consultant support, build a public facing speed regulations collection and visualization tool.
- Prepare the HSIP annual report.
- Work with Consultant to finalize Pedestrian Scale Lighting Guidance.
- Prepare for RFP for updating SHSP and VRU Road Safety Assessment and run through the selection process.
- Continue to assist with raising awareness of safety messaging.
- Continue working with Safe System Intersection analyses and other Safe System methods to quantify safety.
- Work with RMV to further improve the data quality of the VRU information.

**Anticipated products:**

- Contract for enhanced IMPACT Crash Data Portal and geocoding systemics.
- Speed Regulation Collection and Visualization Tool
- Additional MA-specific SPFs and CMFs
- Draft SHSP (to be finalized in December 2027)
- Completed Road Safety Audits.

- Update guidance on HSIP eligibility.
- Completed annual HSIP report.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $1,909,485.25**

*Estimated staff salaries and benefits: $1,749,485.25*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Darryl Valovcin** | 90.0 |
| **TPP II TBH** | 90.0 |
| **Robert Moon** | 90.0 |
| **Dakota DelSignore** | 88.0 |
| **Michelle Deng** | 88.0 |
| **Ana Fill** | 88.0 |
| **Kevin Fitzgerald** | 88.0 |
| **Jennifer Inzana** | 88.0 |
| **Kirsten Johnson** | 88.0 |
| **Bonnie Polin** | 88.0 |
| **Stacey Schwartz** | 88.0 |
| **James Terlizzi** | 88.0 |
| **Kylie Braunius** | 88.0 |
| **Shaojie Qiu** | 88.0 |
| **Thom O'Shields** | 88.0 |
| **Ethan Costa** | 88.0 |
| **Brady Miller** | 88.0 |
| **Benjamin Resek** | 88.0 |
| **intern 2 co-op 2** | 85.0 |
| **Intern-1 co-op-1** | 85.0 |
| **intern 3 co-op 3** | 85.0 |

*Estimated consultant costs: $160,000.00*

| Subtask / contract # | Total cost: | Pre-FFY 2027: | FFY 2027: | Post-FFY 2027: | Consultant/Contractor Name: | Consultant NTP: | Contract End Date: |
|---|---|---|---|---|---|---|---|
| **Consultant to assist with quick-hit research and SHSP / TBD** | $300,000.00 | $0.00 | $100,000.00 | $200,000.00 | TBD | 10-31-2026 | 09-30-2029 |

## B.8 / Prevent and Minimize Risks to MassDOT Staff and Workers on the Roadways

**Task Lead:** Bonnie Polin

**Task Purpose:**

Work is required to manage known and preventable risks to MassDOT employees and those working on the roadways by setting, communicating, and following safety standards to achieve our goal of zero fatalities and injuries.

**Accomplishments in prior year:**

As of the date of this preparation (August 3rd), work was starting on the FFY2026 assessment (2 per each district). The bulk of the work will take place in September and October. The reports will be completed by Summer 2027. It should be noted that the FFY2026 work zone audits were not yet finalized.

**Proposed activities for next year:**

- Continue to research and support work zone safety initiatives through participation in the Work Zone Technical Committee as part of the AASHTO Subcommittee on Traffic Engineering (SCOTE) and National Committee on Uniform Traffic Control Devices (NCUTCD).
- Continue involvement in the Strategic Highway Safety Plan (SHSP) emphasis area of Safety of Workers on the Roadways.
- Continue work at the national level on work zone safety and integration of technology
- Complete the FY2026 work zones assessments which should be completed fall 2026.
- Select locations and commence work on the FFY2027 work zone safety assessments (two per MassDOT district). This is anticipated to take place in the fall 2027 and be completed in late summer 2027.

**Anticipated products:**

12 Work Zone Safety Assessments. By end of FFY2027 the assessments and accompanying reports will be completed on the FFY2026 assessments and the assessment part of the effort for the FFY2027 locations will be completed in FFY2027.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $49,055.48**

*Estimated staff salaries and benefits: $49,055.48*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Kevin Chiang** | 8.0 |
| **Christopher Falcos** | 8.0 |
| **Zachary Medeiros** | 4.0 |
| **Fangyun Xi Goncalves** | 4.0 |
| **Thao Tran** | 4.0 |
| **Emmanuel Gonzalez** | 4.0 |
| **Buu Tran** | 4.0 |
| **Noah Thompson** | 4.0 |
| **Everlyn Galloway** | 4.0 |

## B.9 / Training of MassDOT Staff to Keep Current and Cutting Edge

**Task Lead:** Bonnie Polin

**Task Purpose:**

This task includes training for MassDOT Traffic and Safety staff with the intention of keeping up with the latest practices in highway safety to effectively reduce fatalities and injuries on Massachusetts' roadways.

**Accomplishments in prior year:**

- Attended the Transportation Research Board (TRB) Annual Meeting, FHWA Peer Exchanges, and the AASHTO Committee on Safety and other AASHTO related meetings.
- Served as panel members for National Cooperative Highway Research Program (NCHRP) studies.
- Trained other staff members on HSM methodologies and data driven safety analyses and other trainings to further the efforts to reduce fatalities and injuries.

**Proposed activities for next year:**

- Attend the TRB Annual Meeting, FHWA Peer Exchanges, and the AASHTO Committee on Safety, NCUTCD, and other meetings.
- Participate in NCHRP panels on safety research.
- Attend webinars on best practices and latest findings of enhancing and incorporating safety.
- MassDOT staff will avail themselves of training (May be virtual or in person).

**Anticipated products:**

Better trained employees who can push new methodologies to reduce fatalities and injuries.

**Estimated task completion:** 09-30-2027

**Estimated task budget: $125,132.83**

*Estimated staff salaries and benefits: $125,132.83*

### *MassDOT Staff Assignments*

| MassDOT staff members | % Time to task |
|---|---|
| **Amitai Lipton** | 8.0 |
| **Dakota DelSignore** | 7.0 |
| **Michelle Deng** | 7.0 |

| | |
|---|---|
| **Ana Fill** | 7.0 |
| **Kevin Fitzgerald** | 7.0 |
| **Kirsten Johnson** | 7.0 |
| **Bonnie Polin** | 7.0 |
| **Stacey Schwartz** | 7.0 |
| **Neil Boudreau** | 7.0 |
| **James Danila** | 7.0 |
| **Kylie Braunius** | 7.0 |
| **Ethan Costa** | 6.0 |
| **Jennifer Inzana** | 4.0 |
| **Robert Moon** | 4.0 |
| **Thom O'Shields** | 4.0 |
| **Brady Miller** | 4.0 |
| **Benjamin Resek** | 4.0 |

# SPR I Financial Table

## Totals

| | Staff cost | Consultant cost | Other cost | Total cost |
|---|---|---|---|---|
| SPR I A | $6,079,870.51 | $3,648,482.88 | $4,113,410.92 | $13,841,764.32 |
| SPR I B | $5,146,136.94 | $1,259,500.00 | $745,500.00 | $7,151,136.94 |
| SPR I (A+B) total | $11,226,007.46 | $4,907,982.88 | $4,858,910.92 | $20,992,901.26 |
| SPR II | $560,238.43 | $5,860,263.16 | $642,991.41 | $7,063,493.00 |
| SPR I & II total | $11,786,245.89 | $10,768,246.04 | $5,501,902.33 | $28,056,394.26 |

| | |
|---|---|
| SPR II % of total | 25.2% |
| Complete Streets % of total | 2.8% |

The SPR will be monitored throughout the year to determine if an amendment to the STIP is necessary to ensure adequate funding. The SPR II is 25.2% of the overall program, meeting the 25% minimum threshold.