



CAPE COD
COMMISSION

Cape Cod Unified Planning Work Program Federal Fiscal Year 2023

Endorsed: May 23, 2022

Administrative Modification: February 27, 2023



Cape Cod Unified Planning Work Program for FFY2023

This report was funded in part through grants from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), United States Department of Transportation (USDOT). The views and opinions of the Cape Cod Metropolitan Planning Organization (MPO) expressed herein do not necessarily state or reflect those of the USDOT.

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The Cape Cod MPO complies with Title VI of the Civil Rights Act of 1964 and related federal and state statutes and regulations. It is the policy of the Cape Cod MPO to ensure that no person or group of persons shall on the grounds of Title VI protected categories, including race, color, national origin, or under additional federal and state protected categories including sex, age, disability, sexual orientation, gender identity or expression, religion, creed, ancestry, veteran's status (including Vietnam-era veterans), or background, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity administered by the Cape Cod MPO. To request additional information about this commitment, or to file a complaint under Title VI or a related nondiscrimination provision, please contact the MPO's Title VI Coordinator by phone at (508)362-3828, TTY at 508-362-5885, fax (508) 362-3136 or by e-mail at mhevenor@capecodcommission.org.

If this information is needed in another language, please contact the MPO's Title VI Coordinator by phone at (508)362-3828.

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Título VI da MPO pelo telefone 508-744-1299.

The public discussion of the Unified Planning Work Program (UPWP) at CCJTC, MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration (FTA).

Cape Cod Unified Planning Work Program for FFY2023

Cape Cod Unified Planning Work Program (UPWP) prepared by the

Cape Cod Metropolitan Planning Organization (MPO) Members:

- Jamey Tesler, Chair, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)
- Jonathan Gulliver, Administrator, MassDOT Highway Division
- Robert Lawton, Chair, Cape Cod Regional Transit Authority
- Harold Mitchell, Cape Cod Commission
- Matthew Levesque, President, Barnstable Town Council
- Mark Forest, Barnstable County Commissioners
- Judith MacLeod-Froman, Bourne Selectmen Chair, Sub Region A Representative (Bourne, Falmouth, Mashpee, and Sandwich)
- Sheryl McMahon, Dennis Select Board member, Sub Region B Representative (Dennis and Yarmouth)
- Kevin Galligan, Orleans Select Board Chair, Sub Region C Representative (Brewster, Chatham, Harwich, and Orleans)
- Robert Weinstein, Truro Select Board Chair, Sub Region D Representative (Eastham, Provincetown, Truro, and Wellfleet)
- Brian Weeden, Chairman, Mashpee Wampanoag Tribal Council

MPO Ex-Officio Members:

- Tom Temple, Chairman, Cape Cod Joint Transportation Committee
- Brian Carlstrom, National Park Service/Cape Cod National Seashore
- Lawrence T. Davis, US Army Corps of Engineers/Cape Cod Canal
- Robert B. Davis, Woods Hole, Martha's Vineyard, and Nantucket Steamship Authority
- Jeffrey McEwen, Federal Highway Administration
- Peter Butler, Federal Transit Administration

and the

Cape Cod Joint Transportation Committee

- Tom Temple, Chairman, Chatham
- Rich Waldo, Vice-Chairman, Provincetown

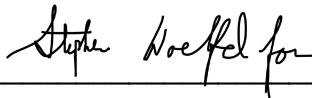
Cape Cod Commission UPWP Staff Contact:

- David Nolan Jr., Senior Transportation Planner, Cape Cod Commission

Cape Cod Metropolitan Planning Organization

Endorsement of the Federal Fiscal Years 2023 Cape Cod Unified Planning Work Program (UPWP)

The signature below certifies that the Cape Cod Metropolitan Planning Organization (MPO), at their meeting on May 23, 2022, hereby approved the following action in accordance with the Comprehensive, Cooperative and Continuous transportation planning process. In accordance with the requirements of 23 CFR Part 450 Section 308(c) of Federal Regulations, the MPO for Cape Cod has completed its review and hereby endorses the Cape Cod Unified Planning Work Program for Transportation Planning Activities for October 1, 2022, through September 30, 2023.



MPO Members:

- Jamey Tesler, Chair, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)
- Jonathan Gulliver, Administrator, MassDOT Highway Division
- Robert Lawton, Chair, Cape Cod Regional Transit Authority
- Harold Mitchell, Cape Cod Commission
-
- Mark Forest, Barnstable County Commissioners
- Judith MacLeod-Froman, Bourne Selectmen Chair, Sub Region A Representative (Bourne, Falmouth, Mashpee, and Sandwich)
- Sheryl McMahon, Dennis Select Board member, Sub Region B Representative (Dennis and Yarmouth)
- Kevin Galligan, Orleans Select Board Chair, Sub Region C Representative (Brewster, Chatham, Harwich, and Orleans)
- Robert Weinstein, Truro Select Board Chair, Sub Region D Representative (Eastham, Provincetown, Truro, and Wellfleet)
- Brain Weeden, Chairman, Mashpee Wampanoag Tribal Council

MPO Ex-Officio Non-Voting Members:

- Tom Temple, Chairman, Cape Cod Joint Transportation Committee
- Brian Carlstrom, National Park Service/Cape Cod National Seashore
- Lawrence T. Davis, US Army Corps of Engineers/Cape Cod Canal
- Robert B. Davis, Woods Hole, Martha's Vineyard, and Nantucket Steamship Authority
- Jeffrey McEwen, Federal Highway Administration
- Peter Butler, Federal Transit Administration

Certification of the Cape Cod MPO Transportation Planning Process

The Cape Cod Metropolitan Planning Organization certifies that its conduct of the metropolitan transportation planning process complies with all applicable requirements, which are listed below, and that this process includes activities to support the development and implementation of the Regional Long-Range Transportation Plan and Air Quality Conformity Determination, the Transportation Improvement Program and Air Quality Conformity Determination, and the Unified Planning Work Program.

1. 23 USC 134, 49 USC 5303, and this subpart.
2. Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d) and 40 CFR part 93 and for applicable State Implementation Plan projects.
3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21.
4. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity.
5. Section 1101 (b) of the Fast Act (Pub. L. 114-357) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in U.S. DOT-funded projects.
6. 23 CFR part 230, regarding implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts.
7. The provisions of the US DOT and of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38.
8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving federal financial assistance.
9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender.
10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.
11. Anti-lobbying restrictions found in 49 USC Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, or a member of Congress, in connection with the awarding of any federal contract.

May 23, 2022



Jamey L. Tesler, Secretary and Chief Executive Officer
Massachusetts Department of Transportation
Chair, Cape Cod MPO

310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation

This will certify that the Transportation Improvement Program and Air Quality Conformity Determination for the Cape Cod Long Range Transportation Plan is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation. The regulation requires the MPO to:

1. 310 CMR 60.05(5)(a)1.: Evaluate and report the aggregate transportation GHG emissions impacts of RTPs and TIPs;
2. 310 CMR 60.05(5)(a)2.: In consultation with MassDOT, develop and utilize procedures to prioritize and select projects in RTPs and TIPs based on factors that include aggregate transportation GHG emissions impacts;
3. 310 CMR 60.05(5)(a)3.: Quantify net transportation GHG emissions impacts resulting from the projects in RTPs and TIPs and certify in a statement included with RTPs and TIPs pursuant to 23 CFR Part 450 that the MPO has made efforts to minimize aggregate transportation GHG emissions impacts;
4. 310 CMR 60.05(5)(a)4.: Determine in consultation with the RPA that the appropriate planning assumptions used for transportation GHG emissions modeling are consistent with local land use policies, or that local authorities have made documented and credible commitments to establishing such consistency;
5. 310 CMR 60.05(8)(a)2.a.: Develop RTPs and TIPs;
6. 310 CMR 60.05(8)(a)2.b.: Ensure that RPAs are using appropriate planning assumptions;
7. 310 CMR 60.05(8)(a)2.c.: Perform regional aggregate transportation GHG emissions impact analysis of RTPs and TIPs;
8. 310 CMR 60.05(8)(a)2.d.: Calculate aggregate transportation GHG emissions impacts for RTPs and TIPs;
9. 310 CMR 60.05(8)(a)2.e.: Develop public consultation procedures for aggregate transportation GHG emissions impact reporting and related GWSA requirements consistent with current and approved regional public participation plans;
10. 310 CMR 60.05(8)(c): Prior to making final endorsements on the RTPs, TIPs, STIPs, and projects included in these plans, MassDOT and the MPOs shall include the aggregate transportation GHG emission impact assessment in RTPs, TIPs, and STIPs and provide an opportunity for public review and comment on the RTPs, TIPs, and STIPs; and
11. 310 CMR 60.05(8)(a)1.c.: After a final GHG assessment has been made by MassDOT and the MPOs, MassDOT and the MPOs shall submit MPO-endorsed RTPs, TIPs, STIPs or projects within 30 days of endorsement to the Department for review of the GHG assessment.

Cape Cod Unified Planning Work Program for FFY2023



Jamey Tesler, Secretary and CEO
Massachusetts Department of Transportation (MassDOT);
Chair, Cape Cod Metropolitan Planning Organization (CCMPO)

Date

Executive Summary

The Cape Cod Metropolitan Planning Organization's (MPO) staff work plan, known as the Unified Planning Work Program (UPWP), lists planning activities anticipated to be performed by MPO staff and others over the next year.

The MPO is made up of eleven voting members with representatives of state agencies, regional organizations, and Cape Cod towns. Discussions at MPO meetings help select planning studies to be included in the UPWP. Members of the public are welcome and encouraged to attend these meetings and voice opinions.

Contents of the Plan

The Unified Planning Work Program discusses coordination with the federal Bipartisan Infrastructure Law (BIL) of 2021, and its predecessor the Fixing America's Surface Transportation (FAST) Act and is organized by a series of tasks and corresponding sub-tasks. Each sub-task includes a scope of work with the following components: objectives, previous work, procedures, products, beneficiary communities, schedule, and funding breakdown.

FY 2023 Tasks

Unified Planning Work Program tasks and sub-tasks are listed below along with the associated funding for each task.

- Task #1 – Management and Support of the Planning Process and Certification Activities (\$253,000)
 - Task 1.1 - Unified Planning Work Program (Certification Activity)
 - Task 1.2 - Transportation Improvement Program (Certification Activity)
 - Task 1.3 - CCJTC and MPO Activities
 - Task 1.4 – Environmental Justice/Title VI
 - Task 1.5 – Public Participation Plan
 - Task 1.6 – Regional Transportation Plan
- Task #2 – Data Collection and Analysis Activities (\$241,000)
 - Task 2.1 – Cape Cod Traffic Data Collection Program
 - Task 2.2 – Performance Standards
 - Task 2.3 – Transportation Database Management
 - Task 2.4 – Pavement Management/Stormwater Management
 - Task 2.5 – Healthy Transportation/Complete Streets Support
 - Task 2.6 – Geographic Information System
- Task #3 – Short- And Long-Range Transportation Planning (\$265,000)
 - Task 3.1 – Station Avenue (Yarmouth) Corridor Study

Cape Cod Unified Planning Work Program for FFY2023

- Task 3.2 – Transportation Safety: RSAs/Non-Motorist Crash Analysis
- Task 3.3 – Side-Path Crossing Inventory
- Task 3.4 – Climate Action Plan Implementation
- Task 3.5 – Follow-Up on Previous Transportation Planning Studies
- Task #4 – Technical Assistance Activities (\$179,904)
 - Task 4.1 – Transit Planning
 - Task 4.2 – Support for Passenger Rail Service
 - Task 4.3 – Transit Data Collection and Analysis
 - Task 4.4 – Other Technical Assistance Requests

The Unified Planning Work Program also includes other transportation planning activities such as those directly funded by the Cape Cod Commission. Additionally, the UPWP includes a detailed breakdown of funding source and dollar amount for each sub-task, with the exception of projects funded by the Cape Cod Commission.

How to get involved

The Cape Cod MPO voted to release the draft UPWP for the public review/comment period at their 1:00 PM virtual meeting on April 25, 2022, officially beginning the 21-calendar-day public comment period.

Meetings featuring a short presentation on the document, followed by an opportunity for public comments, will be held in-person on Friday, May 6, 2022 at 10:00 AM at the Hyannis Transportation Center and virtually on Monday, May 9, 2022 at 6:00 PM.

Additionally, number of additional in-person opportunities for public comment will be scheduled across the region. and staff will be available in-person, while in-person public comment opportunities will be held on the following dates and locations:

Presentation and public comment opportunity:

- Friday, May 6, 2022, at 10:00 AM (at the Hyannis Transportation Center)
- Monday, May 9, 2022, at 6:00 AM (virtual)

Public comment opportunity:

- Final May 10, 2022, from 3:00 PM – 6:00 PM (at the Cape Cod Canal, in Sandwich)
- May 11, 2022, from 3:00 PM – 4:00 PM (in Harwich, on the Old Colony Rail Trail)
- May 12, 2022, from 11:00 AM – 1:00 PM (at Provincetown Town Hall)

A virtual public meeting of the Cape Cod MPO is scheduled for Monday, May 23, 2022, at 1:00 PM to hear additional public comments and consider endorsement of this document.

Cape Cod Unified Planning Work Program for FFY2023

Details on the online public comment opportunities and the virtual public meeting available at www.capecodcommission.org/mpo

Comments on this plan were accepted through May 16, 2022, via mail, by facsimile, or via e-mail, as follows:

Mailed:

Cape Cod Commission Transportation Program
David Nolan Jr., Senior Transportation Planner
3225 Main Street (Route 6A) | PO Box 226
Barnstable MA 02630-0226

Sent by facsimile to the attention of David Nolan, Jr., Senior Transportation Planner:

FAX: 508-362-3136

Electronic mail “email”—please put “UPWP” in the subject line and send to:

david.nolan@capecodcommission.org

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Introduction

The Unified Planning Work Program (UPWP) is developed annually by the Cape Cod Commission transportation staff on behalf of the Cape Cod Metropolitan Planning Organization, in accordance with the requirements in the federal Bipartisan Infrastructure Law of 2021.

Planning activities of the Metropolitan Planning Organization (MPO) are detailed in the Memorandum of Understanding (MOU) available at capecodcommission.org/mpo. The MOU was updated May 23, 2022, to reflect the most recent MPO certification review.

The UPWP describes all significant transportation planning activities for Cape Cod over the twelve (12) month period of October 2022 to September 2023, regardless of lead organization and funding source. The following are the major transportation planning areas:

1. Management and Support of the Planning Process and Certification Activities – the efforts required for coordinating transportation planning activities between CCC and Metropolitan Planning Organization (MPO) member communities, local, regional, state and federal agencies; efforts required to maintain the public participation process; Environmental Justice strategies; efforts required for the administration of the CCC contract with the Massachusetts Department of Transportation (MassDOT); development and approval of the UPWP and the Transportation Improvement Program (TIP); and enhancement of the technical capacity of the planning process.
2. Data Collection and Analysis Activities – to continually gather and update traffic, crash, and road data necessary for transportation planning and analysis; to maintain databases; to develop and update Cape Cod’s travel demand forecasting model; and to review safety data, goals, objectives, and strategies to promote safety.
3. Short- and Long-Range Transportation Planning – includes efforts to perform special planning studies of corridor safety/traffic flow and transit and integration of special studies into the regional transportation plan. Emphasis areas include identification of strategies to support the economic vitality of the metropolitan area, transportation security, emergency planning, strategies to promote smart growth and economic development patterns, environmental protection and energy conservation, and preservation of the existing transportation system.

4. Other Technical Activities – to provide other technical assistance to the region, including assistance in the design and implementation of projects, participating in special studies, coordination with transit agencies and assistance in the planning, design, and development of the Intelligent Transportation System for Cape Cod. Special emphasis areas include 1.) Enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight; and 2.) Promotion of Operation and Management Strategies.
5. Regulatory Review and Planning Assistance to the Towns – review of Developments of Regional Impact (DRIs) and assistance in the development and implementation of Local Comprehensive Plans and Districts of Critical Planning Concern.

All tasks detailed in the UPWP will be conducted by Cape Cod Commission staff unless otherwise indicated.

Other transportation planning efforts that are being performed outside of the MPO budget process (e.g., Cape Cod transportation planning studies being performed by the state) are detailed in the Appendices. The Appendices also include funding information, summary of comments, and a checklist of UPWP elements.

Federal and state guidance recommend that at least 1/3 of PL funds are used on tasks that result in tangible products. Every task in the UPWP results in a report or includes documentation available to stakeholders, including the public. The subtasks of the UPWP most directly leading to transportation improvement projects are those included in Task 3 (Short- and Long-Range Transportation Planning), corresponding to a 28% (\$265,00/\$938,904) level of effort.

Coordination with Federal Transportation Planning Factors

All tasks of the UPWP will be implemented with consideration of federal transportation planning factors. This discussion relates to the general topic of Cape Cod MPO transportation planning and is intended to provide an overview to the public. Each planning factor may apply to a varying degree to each specific UPWP task. Cape Cod MPO transportation planning goals are manifested in the Cape Cod Regional Transportation Plan (RTP) referenced in the discussion below. The UPWP is developed in coordination with the ten federal transportation planning factors, identified in 23 CFR 450.306, as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to changes of delay and emissions. Reduction in traffic delay has a direct consequence on economic vitality both through the timely arrival of commuters and goods, and the reduction in fuel expenses and other losses caused by air pollution. The RTP directly supports these efforts through the goal: “Maintain, protect, and enhance the natural environment while strengthening the economy.” The CCC also supports regional productivity through its economic development mission manifested in the Regional Policy Plan and support of the Cape Cod Economic Development Council’s initiatives, including support of the federally approved Cape Cod Comprehensive Economic Development Strategy priority projects.

2. Increase the safety of the transportation system for motorized and nonmotorized users.

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. This focus on safety is echoed in the RTP; indeed, the primary goal of the RTP is to provide safe travel options for all users.”

3. Increase the security of the transportation system for motorized and nonmotorized users.

Goals of the RTP related to security include: “Provide safe travel options for all users” and “Preserve, maintain, and modernize the existing transportation system.” One area of additional security planning that applies to Cape Cod is that of traffic impacts due to weather events such as hurricanes. CCC staff is continuing to participate in the Massachusetts Emergency Management Agency (MEMA) Massachusetts State Police efforts regarding the “Cape Cod Emergency Traffic Plan.”

4. Increase the accessibility and mobility of people and freight.

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to improvements in multimodal accessibility. The RTP supports these efforts through the following two goals: “Provide a variety of healthy transportation options to all users” and “Improve efficiency and reliability of freight movement.” The RTP also includes an appendix addressing freight issues.

5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

The RTP directly supports this planning factor through two goals: “Maintain, protect, and enhance the natural environment while strengthening the economy” and “Support

livable communities and village centers that strengthen the long-term sustainability of the region.” The RTP, and therefore the UPWP, include a focus on addressing climate change. Where appropriate, UPWP tasks will include assessments of vulnerabilities and negative risks that climate change effects or extreme weather events pose to the Cape’s transportation infrastructure. These vulnerabilities and risks will be seriously considered when planning future improvements. Where appropriate, UPWP tasks will also develop adaptation strategies that will enable the Cape Cod region to implement improvements appropriately. The reduction of greenhouse gas emissions (GHG) remains an important goal in addressing climate change. UPWP tasks that reduce VMT and congestion are encouraged.

6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to improvements in multimodal accessibility. The RTP supports these efforts through the following two goals: “Provide a variety of healthy transportation options to all users” and “Improve efficiency and reliability of freight movement.” Where appropriate, UPWP tasks will support the enhancement of the movement of goods throughout the Cape Cod region. To further this goal, Cape Cod MPO staff will continue to develop knowledge and skills regarding the integration of goods movement. The RTP also includes an appendix addressing freight issues.

7. Promote efficient system management and operation.

The RTP supports this planning factor through two goals: “Reduce congestion and improve travel time reliability” and “Preserve, maintain, and modernize the existing transportation system.” Relevant objectives from these goals include:

- Reduce delay for all modes.
- Improve connectivity and reliability for all modes of transportation.
- Minimize the impacts of construction delays on all users, particularly impacts of Cape Cod Canal Bridge maintenance.
- Improve the condition of all state and municipally owned bridges.
- Improve the pavement condition on all federal-aid eligible roadways.
- Maintain and improve on and off-road bicycle and pedestrian facilities.
- Use modern technology to improve the efficiency of the transportation system.
- Improve coordination and cooperation between agencies throughout all phases of project development and implementation for all improvement and maintenance projects.

The RTP includes specific performance targets for each of the above objectives.

8. Emphasize the preservation of the existing transportation system.

The RTP supports this planning factor through the goal: “Preserve, maintain, and modernize the existing transportation system.” Through the CCC regulatory process, development projects are required to provide traffic mitigation. Additionally, a significant amount of developable land has been conserved through the CCC regulatory process — thereby protecting against future transportation impacts.

9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.

The RTP includes a key effort to integrate resiliency into transportation planning. Goals within this effort include:

- Identify critical transportation infrastructure on Cape Cod.
- Identify transportation infrastructure vulnerable to the impacts of sea level rise.
- Improve vulnerability and risk assessment practices for planners and town officials.
- Formulate effective adaptation strategies for Cape Cod.
- Foster local support and input on climate change vulnerability assessments.

Additionally, the RTP includes a section on stormwater management, including a set of “best management practices” that have applicability to the Cape’s roadways.

10. Enhance travel and tourism.

For many years, tourism has been a major component of the Cape’s economy. As such, an RTP section on scenario planning includes a discussion of tourism and its impacts on the Cape’s future transportation needs.

Staff Development

Throughout the year, staff will be provided with opportunities for professional development in support of the various UPWP tasks. For example, to attend a workshop that focuses on reducing crashes at hazardous intersections, the workshop fee and staff time will be billed to the UPWP task related to safety.

UPWP Amendment/Adjustment Procedures

Due to unforeseen circumstances, the UPWP may need to be modified from its original MPO endorsed form. There are different actions that may be taken in order to modify the endorsed UPWP. These actions vary, depending on the extent of the modification, and have different impacts on the UPWP. All proposed Amendments and Adjustments are presented to the MPO for consultation prior to endorsement. The procedures for modifying the UPWP are as follows:

UPWP Amendment

A UPWP Amendment is the most extensive change procedure that a UPWP may undergo. A UPWP Amendment requires the proposed change to undergo a 21-day public review period, endorsement by the MPO, and approval by FHWA. The Cape Cod MPO, at their discretion, may vote to abbreviate the public comment period under what they consider extraordinary circumstances beyond the MPO's control. Examples of UPWP Amendments include:

- The addition or removal of UPWP sub-tasks
- Major changes to UPWP task descriptions, activities, and other information
- Funding increase above the originally approved UPWP overall budget
- Funding transfers between tasks equal to or greater than 25% of the UPWP task budget
- Funding increase or decrease equal to or greater than 25% of the UPWP task budget

UPWP Administrative Modification (Adjustment)

A UPWP Administrative Modification (Adjustment) is a minor Amendment. The Adjustment procedure requires an administrative action, consultation with the MPO, and MassDOT-OTP approval through the utilization of a Budget Reallocation Request Form. Examples of UPWP Adjustments include:

- Minor changes to UPWP task descriptions, activities, and other information
- Funding transfers between tasks less than 25% of the UPWP task budget
- Funding increase or decrease less than 25% of the UPWP task budget

Task #1 – Management and Support of the Planning Process and Certification Activities

TASK 1.1 - UNIFIED PLANNING WORK PROGRAM

(Certification Activity)

Objectives: To develop a Unified Planning Work Program (UPWP), in accordance with the requirements in federal transportation planning regulations, and to obtain MPO endorsement of the UPWP. Progress reports will be prepared as needed.

Previous Work: Previous UPWPs (most recent MPO-endorsed FY 2022 UPWP; endorsement of FY 2023 UPWP expected May 2022)

Procedures: In conformance with applicable Federal and State guidelines, prepare a UPWP which describes all significant transportation and transportation-related planning activities anticipated to be carried out in the region during the period, regardless of funding sources or lead organization. Maintain the UPWP and make amendments as necessary. Active reviewers and contributors to UPWP development include MassDOT (Office of Transportation Planning and District 5), the CCJTC and the CCMPO.

Products: Unified Planning Work Program for Transportation Planning Activities for the period October 1, 2022, to September 30, 2023. Amendments to the current UPWP will be submitted as necessary. Monthly progress reports on PL activities performed under the UPWP and an annual report of transportation planning activities.

Schedule:

- Draft FFY 2024 UPWP anticipated submission to MPO and CCJTC [April 2023]
- Final FFY 2024 UPWP anticipated submission to MPO [May 2023]
- Monthly and quarterly progress reports
- Annual Report

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$28,000

TASK 1.2 - TRANSPORTATION IMPROVEMENT PROGRAM

(Certification Activity)

Objectives: To prepare a program of transportation improvement projects that is consistent with the federal Bipartisan Infrastructure Law of 2021 the region's transportation plan, the State Implementation Plan, EPA's Air Quality Conformity Regulations, and FHWA/FTA's Planning Regulations. The Transportation Improvement Program (TIP) will include a five-year program of projects. The TIP will be presented for endorsement by the Metropolitan Planning Organization (MPO) in accordance with federal regulations and the region's Public Participation Plan.

The recent success of the Cape Cod Bicycle Infrastructure Program has demonstrated that strategic use of a small amount of the annual TIP regional allocation can have significant benefits to the region. Commission staff will begin to investigate the creation of another such program(s) to implement specific regional priorities, performance metrics, or goals. This will be accomplished by developing a draft framework including: 1) identification of a regional goal to accomplish or priority to address through the RTP; 2) defining a budget; 3) identifying eligible project types; 4) setting project selection criteria; 5) selection of projects; and 6) process evaluation. The program will likely address project types that have historically been challenging to program in the TIP potentially including, but not limited to:

- Small bicycle/pedestrian projects that improve conditions and/or level of accommodation
- Small bicycle/pedestrian projects that close gaps in the multi-modal network
- Small transit projects to improve connections to transit stops
- Technology updates for traffic signals
- Projects consistent with the "Climate Change Adaptation and Mitigation" funding share identified in the Cape Cod RTP.

Previous Work: "Cape Cod Transportation Improvement Programs (TIPs)," and amendments as needed, 1988 to present;

- Latest endorsed TIP FFY 2022-2026 [endorsed May 2021]
- FFY 2023-2027 TIP [endorsement expected May 2022]

Procedures: To continue to participate in a committee of Regional Planning Agency (RPA) Directors, Federal and State officials to cooperatively develop financial estimates, evaluate projects, and create a schedule of TIP development.

TIP Development Process: The Cape Cod Transportation Improvement Program (TIP) is a listing of federal aid eligible transportation projects for Cape Cod prepared under

the direction of the Cape Cod Metropolitan Planning Organization (MPO). The plan is prepared by the Cape Cod Commission (CCC) transportation staff, the Cape Cod Regional Transit Authority (CCRTA) staff, Massachusetts Department of Transportation (MassDOT) staff (Boston and District 5), and the Cape Cod Joint Transportation Committee (CCJTC), with input from the public and in cooperation with multiple state and federal agencies.

The TIP is developed based on a vision defined in the Cape Cod Regional Transportation Plan (RTP) and includes the transportation projects proposed for implementation in the next five years. Each year of the TIP must be financially constrained; anticipated project costs cannot exceed available funding. The TIP must conform to a host of federal and state requirements and polices including air quality and equity programs.

The inclusion of a project in the TIP is one step on the path towards construction. Inclusion on this list does not guarantee funding; the project proponent is responsible for completing the steps toward implementation within the program. For a highway project, the obligation of the federal and state funds occurs when the project is advertised for construction by MassDOT. For a transit project, the obligation of the funding is through an electronic approval system by FTA.

TIP Development Schedule: The Cape Cod MPO process follows an annual schedule for development of the Transportation Improvement Program (TIP) to be compatible with the development schedule of the State Transportation Improvement Program (STIP), as is required under 23 CFR 450.326. The STIP includes projects lists in the Cape Cod TIP, projects listed in the TIP from other planning regions, and projects that span multiple planning regions. The Cape Cod TIP is generally endorsed by the Cape Cod MPO each May, with the STIP being submitted for federal approvals prior to the beginning of the Federal Fiscal Year on October 1.

TIP Public Participation Process: Pursuant to Federal Highway Administration 23 CFR Part 450 and Federal Transit Administration 49 CFR, the Cape Cod Transportation Improvement Program (TIP) was developed locally and is based on the latest Regional Transportation Plan (RTP) following the process detailed in the Public Participation Plan (PPP).

Products:

- TIP consistent with the State Implementation Plan and the Regional Transportation Plan
- Modifications/amendments to the TIP as required

Schedule: As determined by the MPO, FHWA, FTA, and MassDOT

- Presentations of potential new projects to the CCJTC/CCMPO [Fall 2022]
- Scoring of potential projects; development of potential program of projects [Winter/Spring 2022-2023]
- Release of public comment draft TIP [April 2023]
- Final draft TIP [May 2023]
- Administrative Adjustments/Amendments [as needed]

Beneficiary Communities: All

<u>Funding source</u>	<u>Amount</u>
FHWA/MassDOT	\$50,000

TASK 1.3 - CCJTC AND MPO ACTIVITIES

Objectives: To maintain an open comprehensive, cooperative and continuous (3C) transportation planning and programming process involving the local, regional, state, and federal levels of government in conformance with applicable federal and state requirements and guidelines.

Previous Work: Past maintenance of 3C process, including support to the CCJTC, the MPO, and member agencies

Procedures:

1. Provide administrative and technical support to the 3C regional planning process, such as:
 - a. Community liaison and assistance on transportation planning matters
 - b. Review of federal and state transportation programs and related documents as required
2. Provide for and support the public participation process in transportation planning for Cape Cod
 - a. Support Cape Cod Joint Transportation Committee (CCJTC)
 - b. Develop, support and participate in local parking, traffic, bikeway, and environmental committee meetings
 - c. Preliminary and follow-up work for meetings as required
3. Present transportation plans and programs (e.g., UPWP, Regional Transportation Plan, and TIP) developed through the public participation process to the Cape Cod Joint Transportation Committee and the Metropolitan Planning Organization (MPO) for appropriate action
4. Conduct efforts in conformance with federal, state, and local requirements

5. Review and address recommendations and corrective actions from the most recent MPO recertification review.

Products:

- Certification review documentation
- Viable 3C process, including CCJTC and public outreach
- Website updates, notices to news media, meeting notices
- Transportation program annual report
- Minutes and reports on CCJTC meetings
- Letters, memoranda, and notes as required
- Other products as required

Schedule: JTC and MPO meetings typically held monthly

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
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FHWA/MassDOT	\$45,000
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TASK 1.4 – TITLE VI/ENVIRONMENTAL JUSTICE

Objectives: To achieve Title VI nondiscrimination program requirements while also maintaining awareness and achievement of principles of Environmental Justice into the 3C Transportation Planning Process. To develop and maintain a Title VI Civil Rights program for the Cape Cod MPO. To incorporate Title VI nondiscrimination requirements while ensuring maintenance of Environmental Justice principles within each task as appropriate.

Previous Work:

- Attendance at preliminary meetings with MassDOT and FHWA to discuss Title VI program requirements and receive guidance on ensuring compliance.
- Preparation of updates to the Cape Cod Regional Transportation Plan including information and strategies to ensure compliance with Title VI requirements while also ensuring maintenance of Environmental Justice principles.
- Annual Title VI Report

Procedures: Coordination with the Cape Cod Regional Transit Authority and MassDOT, as required.

Products:

- Application of Title VI Civil Rights program for the Cape Cod MPO

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- Update demographic maps showing traditionally underserved and “at risk” populations.
- Update maps with housing affordability indicators and affordable housing developments.
- Update contacts in the MassDOT Community Contacts Database.
- Enhanced outreach procedures to engage Title VI communities and other underserved populations to ensure awareness and participation in the MassDOT 3C planning process on current and proposed projects.

Pre- and post-analysis of projected and ongoing improvement projects should ensure that no Title VI discrimination will/is occurring, while also considering and avoiding disproportionately high adverse human health and environmental effects on minority and low-income populations on Cape Cod.

Schedule:

- Update maps [Fall 2022]
- Update contacts [Winter 2022/as needed]
- Engage Title VI communities (during MPO outreach – TIP & UPWP) [Spring 2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$30,000

TASK 1.5 – PUBLIC PARTICIPATION PLAN

Objectives: To ensure that all segments of the population can fully participate in transportation planning processes and has access to transportation facilities. To engage the Mashpee Wampanoag Tribe in transportation planning.

Continuation of the update to the Public Participation Plan (PPP) to address virtual public engagement, new EJ guidance and, as necessary, ensure conformity with the latest MassDOT Public Participation Plan.

Previous Work:

- Preparation of updates to the Cape Cod Regional Transportation Plan including information and strategies to ensure a viable public outreach process.
- Public Participation Plan (2015, 2009, 2007)

Procedures:

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- Continue update to the PPP
- Coordination with the Cape Cod Regional Transit Authority and MassDOT.
- Research/discover additional tools to enhance public outreach.
- Research best practices on virtual public meetings and virtual public engagement.

Products/Activities:

- UPWP projects with a public outreach requirement that complies with the PPP.
- TIP public meetings that comply with the outreach and accessibility requirements of the PPP.
- An evaluation of the effectiveness of the procedures outlined in the PPP will be performed and summarized in a presentation to the MPO.
- Revisions to the PPP, as necessary.

Schedule:

- Draft PPP [Spring 2022]
- Comment period [Summer 2022]
- Potential approval of PPP [Fall/Winter 2022/2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$30,000

TASK 1.6 – REGIONAL TRANSPORTATION PLAN

(Certification Activity)

Objectives: To maintain and update the Regional Transportation Plan for Cape Cod providing greater integration of land use, transportation, and climate change data, in conformance with the federal Bipartisan Infrastructure Law of 2021 and consistent with the goals and requirements of the Cape Cod Commission, towns, MassDOT, FTA, and the FHWA. Consider all modes of transportation and both short- and long-range elements. Expand public accessibility to RTP effort in accordance with the Commission's Title VI program.

Previous Work:

- Cape Cod 2020 Regional Transportation Plan
- Regional Policy Plan for Cape Cod, 2018
- Living Streets Design Manual for Cape Cod, 2013
- UPWP FFY14 Climate Change Risk and Vulnerability Assessment of Transportation Infrastructure, November 2013
- UPWP FFY15 Climate Change Mitigation & Adaptation Strategy for Critical Transportation Infrastructure, under development 2014
- INVEST sustainable highways self-evaluation tool, 2014
- 2014 GIS-based Infrastructure Vulnerability Tool
- 2014 Freight Study
- 2014 "Section 208 Area-Wide Water Quality Management Plan for Cape Cod"

Procedures:

- Better integrate housing and economic development in transportation planning efforts in accordance with the Bipartisan Infrastructure Law.
- Undertake four-year update to the Regional Transportation Plan (RTP). Include RTP conformity analyses and reassessment of fiscal constraint. Ongoing public outreach will include workshops and participation at meetings of local officials and issue-oriented groups focused on the environment, accessibility, and climate change. These efforts will further involve Cape Cod environmental organizations and strengthen the link between transportation impacts and environmental analysis.
- Work closely with MassDOT's Environmental Services section to ensure that any proposed projects have support and approval of MPO. Continue to develop partnerships and conduct outreach with community groups and the Mashpee Wampanoag Tribe.

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- Continue to work with communities to identify Growth Incentive Zones and areas for higher Development of Regional Impact (DRI) thresholds designated through Chapter H of the Commission’s regulations to promote research and development/light manufacturing and identify appropriate transportation infrastructure to support these areas.
- Strengthen procedures to incorporate stormwater and nutrient management from transportation rights-of-way.
- Staff will work with regional and statewide organizations and stakeholders, including other MPOs and MassDOT, to identify strategies to incorporate analytic tools to monitor congestion in the region and inform transportation planning process. MPO staff will apply these strategies to the development of the next CMP (as part of the 2024 RTP) and the development of TIP following the 2024 RTP.
- Continue to integrate Performance Standards into the RTP.

Products:

- Draft and Final Cape Cod 2024 Regional Transportation Plan.
- Interim updates and amendments as necessary
- Presentation materials, maps, website downloads for meetings and workshops
- Public engagement tools

Schedule:

- RTP update to be completed in summer of 2023. Outreach and public workshops to be hosted in Winter/Spring 2023.

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$ 70,000

Task #2 – Data Collection and Analysis Activities

TASK 2.1 – CAPE COD TRANSPORTATION DATA COLLECTION PROGRAM

Objectives: To create and maintain databases of traffic counting data for Cape Cod to be used for transportation planning. To monitor growth in traffic volumes and to determine existing traffic volumes on Cape Cod roads. To perform the coverage counts for MassDOT. To perform bicycle and pedestrian activity counts in selected locations. To obtain data on road geometry, when necessary, as part of the traffic counting efforts. To monitor and display Park and Ride data on a regular basis to show trends and usage of the Park and Rides facilities on Cape Cod.

Note: It is a goal of the region to install permanent traffic counters to provide continuous reliable data on traffic volumes, vehicle types, and speed on all major roads. Permanent stations with remote access capabilities are a safe and cost-effective manner to collect data.

Previous Work: Annual traffic counting programs, 1984–2021. Traffic counting reports and appendices:

- Cape Cod Traffic Counting Report
- Intersection Turning Movement Counts
- Bicycle - Pedestrian Counts
- Park and Ride Lot Counts

Procedures: For the summer of 2023, over 200 automated traffic recorder (ATR) counts will be scheduled across Cape Cod's 15 towns. Additional counts, in coordination with or at the request of the towns and MassDOT, will be taken as schedule and weather permits. Where possible, FHWA traffic monitoring guide procedures will be followed. Police details, if required for the additional count locations, shall be the responsibility of the towns for local roads and MassDOT for state roads and locations requested by MassDOT. Turning movement counts will also be taken at selected intersections. Bicycle and pedestrian counts will also be performed on selected paths throughout Cape Cod, including the Cape Cod Canal Bike Path, the Shining Sea Bikeway, The Cape Cod Rail Trail, and the Old Colony Rail Trail. Commission staff will do manual bicycle and pedestrian counts as well as deploy eco-counters to collect data across the region.

Where possible, FHWA traffic monitoring guide procedures will be followed.

Work activities under this task include:

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- Placement of counters
- Retrieval of counters
- Routine checks of counters
- Equipment inventory and maintenance
- Data tabulation
- Data factoring
- Data analysis/recording
- Coordination of counters
- Coordination of safety measures with towns
- Coordination of external program counts
- Periodic calibration/verification of equipment per MassDOT guidelines
- Obtain necessary permits from towns and MassDOT
- Development of traffic count file and data base
- Data mapping
- Program evaluation
- Computer data entry and maintenance
- Updated geometric information, as needed. Gather information to include sidewalks, shoulders, and bicycle lanes.

Products:

- Cape Cod Traffic Counting Report for 2022. Report will contain information on study design, count location, date/time of peak-hour volume, average daily traffic, and factored average daily traffic. The most recent 10 years of counts conducted by CCC will be included in this report.
- Online database that includes date of counts, general weather and traffic conditions, average daily traffic, factored average daily traffic, peak hour traffic volume. Breakdown of traffic by hour over period studied kept on file. Information provided via a map-based search tool for ease of use by the public and other stakeholders.
- Factored counts for MassDOT
- Expanded seasonal traffic counting data
- Turning movement counts at intersections, including bicycle and pedestrian counts
- An analysis of traffic growth trends over the past 10-year period for Cape Cod, subregions, and major routes
- Counts accessible at website: <http://www.capecodcommission.org/counts>

Schedule: Report on counts taken in 2022, submitted Spring 2023

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$60,000

TASK 2.2 – PERFORMANCE MEASURES

Background: The previous FAST Act emphasized performance-based planning as an integral part of the metropolitan planning process: states were to develop performance goals, guided by the national goals, and then MPOs would work with state departments of transportation to develop MPO performance targets. The TIP integrates the MPOs’ performance measures and links transportation-investment decisions to progress toward achieving performance goals. The FAST Act identified the following national goal areas:

- **Safety:** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure condition:** To maintain the highway infrastructure asset system in a state of good repair
- **Congestion reduction:** To achieve a significant reduction in congestion on the National Highway System
- **System reliability:** To improve the efficiency of the surface transportation system
- **Freight movement and economic vitality:** To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental sustainability:** To enhance the performance of the transportation system while protecting and enhancing the natural environment, including mitigation strategies for stormwater management and nutrient loading.
- **Reduced project delivery delays:** To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.

The new Bipartisan Infrastructure Law includes Planning Emphasis Areas (PEAs), around which states and MPOs should orient their planning efforts. These emphasis areas are listed below. For all goals, the document notes that FHWA Division and FTA regional offices should work with State DOTs, MPOs, and other relevant parties.

- **Tackling the Climate Crisis – Transitioning to a Clean Energy, Resilient Future:** Ensure that our transportation plans and infrastructure investments help

achieve the national greenhouse gas reduction goals of 50-52% below 2005 levels by 2030, and net-zero emissions by 2050.

- **Equity and Justice40 in Transportation Planning:** Advance racial equity and support for underserves and disadvantaged communities.”
- **Complete Streets:** Review current policies, rules, and procedures to determine their impact on safety for all users. This effort should work to include provisions for safety in future transportation infrastructure, particularly those outside automobiles.
- **Public Involvement:** Increase meaningful public involvement in transportation planning by integrating Virtual Public Involvement (VPU) tools into the overall public involvement approach while ensuring continued public participation by individuals without access to computers and mobile devices.
- **Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination:** Coordinate with representatives from DOD in the transportation planning and project programming process on infrastructure and connectivity needs for STRAHNET routes and other public roads that connect to DOD facilities.
- **Federal Land Management (FLMA) Coordination:** Coordinate with FLMA in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to Federal lands.
- **Planning and Environment Linkages (PEL):** Implement PEL as part of the transportation planning and environmental review process. The use of PEL is a collaborative and integrated approach to transportation decision-making that considers environmental community, and economic goals early in the transportation planning process, and uses the information, analysis, and products developed during planning to inform the environmental review process.
- **Data in Transportation Planning:** Incorporate data sharing and consideration into the transportation planning process.

The RTP vision statement established the overarching vision of the document and is as follows:

The Cape Cod Metropolitan Planning Organization, informed by public input, envisions a transportation system that supports the environmental and economic vitality of the region through infrastructure investment that focuses on livability, sustainability, equity, and preservation of the character that makes our special place special.

The 2020 Regional Transportation Plan (RTP) is a community-driven, performance-based plan that considers the unique challenges and opportunities of the region and establishes spending priorities to allocate available surface transportation funding

towards transportation infrastructure. The goals of the RTP expand on the vision statement in seven areas of emphasis. The goals are:

- **Safety:** Provide safe travel options for all users
- **Environmental and Economic Vitality:** Maintain, protect, and enhance the natural environment while strengthening the economy
- **Livability and Sustainability:** Support livable communities and village centers that strengthen the long-term sustainability of the region
- **Multimodal Options/Healthy Transportation:** Provides a variety of healthy transportation options to all users
- **Congestion Reduction:** Reduce congestion and improve travel time reliability
- **System Preservation:** Preserve, maintain, and modernize the existing transportation system
- **Freight Mobility:** Improve efficiency and reliability of freight movement

Federally Required Performance Measure Summary:

The US Department of Transportation (USDOT), in consultation with states, MPOs, and other stakeholders, established measures in performance areas relevant to the national goals. Table 1 lists federally required performance measures for the highway system and Table 2 lists federally required performance measures for the transit system.

Table 1. Federally Required Highway Performance Measures

NATIONAL GOAL	HIGHWAY PERFORMANCE AREA	PERFORMANCE MEASURE
Safety	Injuries and Fatalities	<ul style="list-style-type: none"> • Number of fatalities • Fatality rate per 100 million vehicle-miles traveled • Number of serious injuries • Serious injury rate per 100 million vehicle-miles traveled • Number of non-motorized fatalities and non-motorized serious injuries
Infrastructure Condition	Pavement Condition	<ul style="list-style-type: none"> • Percent of pavements on the Interstate System in good condition • Percent of pavements on the Interstate System in poor condition • Percent of pavements on the non-Interstate NHS in good condition • Percent of pavements on the non-Interstate NHS in poor condition
Infrastructure Condition	Bridge Condition	<ul style="list-style-type: none"> • Percent of NHS bridges by deck area classified as in good condition • Percent of NHS bridges by deck area classified as in poor condition
System Reliability	Performance of the National Highway System	<ul style="list-style-type: none"> • Percent of person-miles traveled on the Interstate System that are reliable • Percent of person-miles traveled on the non-Interstate NHS that are reliable
System Reliability, Freight Movement, and Economic Vitality	Freight Movement on the Interstate System	<ul style="list-style-type: none"> • Truck Travel Time Reliability Index
Congestion Reduction	Traffic Congestion	<ul style="list-style-type: none"> • Annual hours of peak hour excessive delay per capita (for travel on NHS roadways) • Percent of non-single-occupant vehicle travel
Environmental Sustainability	On-Road Mobile Source Emissions	<ul style="list-style-type: none"> • Total emissions reductions

Table 2. Federally Required Transit Performance Measures

NATIONAL GOAL	TRANSIT PERFORMANCE AREA OR ASSET CATEGORY	PERFORMANCE MEASURE
Safety	Fatalities	Total number of reportable fatalities and rate per total vehicle revenue-miles by mode
Safety	Injuries	Total number of reportable injuries and rate per total vehicle revenue-miles by mode
Safety	Safety Events	Total number of reportable events and rate per total vehicle revenue-miles by mode
Safety	System Reliability	Mean distance between major mechanical failures by mode
Infrastructure Condition	Equipment	Percent of vehicles that have met or exceeded their Useful Life Benchmark (ULB)
Infrastructure Condition	Rolling Stock	Percent of revenue vehicles within a particular asset class that have met or exceeded their ULB
Infrastructure Condition	Infrastructure	Percent of track segments with performance restrictions
Infrastructure Condition	Facilities	Percent of facilities within an asset class rated below 3.0 on the Federal Transit Administration’s Transit Economic Requirements Model scale

Targets for federally required performance measures must be set according to timelines established in the current federal transportation legislation. Regarding federally required performance measures, to date the Cape Cod MPO has chosen to adopt:

- The statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2023),

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- the 2-year (2020) and 4-year (2022) statewide bridge and pavement performance measure targets set by MassDOT,
- the 2-year (2020) and 4-year (2022) statewide reliability, congestion, and emissions performance measure targets set by MassDOT, and the
- Cape Cod Regional Transit Authority's Transit Asset Management (TAM) targets at the target for the Cape Cod region.
- Cape Cod Regional Transit Authority's Public Transportation Agency Safety Plan (PTASP) targets.

Objectives: To work with MassDOT to support the above federal transportation goals at the state level. To work with MassDOT and the CCRTA on tracking progress on federally required performance measures and updating targets as required. Track performance on regional performance measures established in the Cape Cod Regional Transportation Plan. To integrate performance management activities with other regional plans and initiatives including the Regional Policy Plan, Comprehensive Economic Development Strategy, Climate Action Plan, Stats Cape Cod, and Data Cape Cod. To leverage available tools and data sets, including the MassDOT Tracker and the RITIS platform, to expand the breath of performance management activities.

Previous Work:

- Development of transportation databases for vehicle counts, bicycle and pedestrian counts, and crash records
- Online mapping of traffic counting data
- Online tool for reviewing and analyzing crash trends (Cape Cod Crash Dashboard)
- Transportation models developed in 1999/2000 for base year of 1997
- Transportation model updated in 2010

Procedures: Collect, compile, and analyses data to support performance measure tracking. Update the Cape Cod Joint Transportation Committee and the Cape Cod Metropolitan Planning Organization on regional progress towards meeting performance targets. Develop an online dashboard to report on regional progress towards meeting performance targets. Integrate performance measures and targets into other planning efforts including the Regional Transportation Plan, Regional Policy Plan, Comprehensive Economic Development Strategy, and Climate Action Plan.

Products: Staff will develop a performance measure dashboard to report on progress towards achieving regional and federal targets. MPO staff will launch the dashboard as part of the development of the 2024 RTP. The dashboard will be updated at a regular interval which will vary based on data availability, but no less than once every four years.

Schedule:

- Summary of performance standards will be presented to the MPO [Winter 2023]
- Updated presentation on updated FHWA performance measures [Spring 2023]
- Dashboard launched during RTP development [Summer 2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$37,000

TASK 2.3 – TRANSPORTATION DATABASE MANAGEMENT/MODELING

Objectives: To maintain and improve databases of Cape Cod transportation information including roadway geometry, traffic volumes (motor vehicles, bicycles, pedestrian), and other issues. To provide transportation information for Cape Cod to local and state officials, transportation professionals, and the public. To perform highway capacity analyses as needed. To continue to develop and calibrate computerized travel demand forecasting databases and models for Cape Cod. To continue integration with Geographic Information System (GIS) data to provide a platform for GIS-based traffic counts, congested link summaries, and crash summaries.

Previous Work:

- Transportation databases for vehicle counts, bicycle and pedestrian counts, and crash records
- Online mapping of traffic counting data
- With the support of a consultant, converted the previous traffic count database to a Microsoft SQL platform while maintaining and improving its functionality and increasing its accessibility (2020-2021)

Procedures:

- Integrate new records when available; maintain database, develop subroutines for analysis. When details are needed for specific locations, town crash records may be obtained and reviewed. CCC staff will contact MassDOT to request latest crash records. Conduct public outreach to member communities. Respond to data and information requests from the public, transportation professionals, and local, regional, and state officials. obtain latest planimetric data and software and use these tools to conduct detailed analyses.
- Review and utilize available socio-economic, employment, population, and housing data for base year and forecast year data. Utilize existing traffic volume and transit data to determine existing travel demands. Utilize existing

transportation models for sub-regions of Cape Cod. Improve transfer methods of data between CCC Geographic Information System (GIS) services and transportation modeling effort. Expand transportation demand model to include Saturday morning element and to explicitly include public transportation used. Additional modeling efforts include the use of Synchro/Sim-Traffic software. Construction of Synchro models includes development of a computerized roadway/intersection network. Inputs include turning movements and roadway link traffic volumes, roadway and intersection geometry, and signal timing and phasing.

- Review the growth areas that were identified in the Cape Cod Regional Policy Plan including Community and Industrial Activity Centers and the regional walkability and bikeability indicators and consider refinements to the analysis to incorporate new datasets such as of Accessibility Observatory (AO) data provided by MassDOT and other new datasets in future analysis refinements.
- Review sidewalk and other transportation infrastructure layers that will be available following a Cape Cod Commission-led regional flyover exercise.
- Funding may be allocated to consultants for follow-up tasks on the new transportation databases that was implemented in previous years.

Products:

- Crash, roadway geometry, roadway traffic volumes, intersection turning movements data, and planimetric information database
- Reports, letters, and memoranda as required
- Updated regional transportation model based on latest available demographic information, reports of results, and summaries
- Models will be used to support Task 3 and other regional planning and TIP activities
- New Microsoft SQL database platform for storing and importing traffic count data
- Revisions to regional walkability and bikeability indicators, as appropriate

Schedule:

- Integrating data into databases [year-round]
- Year-end traffic counting data entry [Winter 2022/2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$37,000

TASK 2.4 – PAVEMENT MANAGEMENT

Objectives: To collect data and implement a regional pavement management system for Cape Cod to provide an objective rating of pavement conditions and needs. To collect other roadway attribute data as part of the pavement management system.

Previous Work:

- Pavement Management Status Reports (2011 - 2021). Corridor-based pavement assessments for 33% of the municipally-owned federal-aid roadway network – outputs include updated databases and mapping.

Procedures:

- Existing roadway conditions will be identified through observations made from motor vehicles. Approximately 33% of the municipally owned federal-aid eligible roadways will be surveyed and results will be used to update databases and produce pavement condition maps and reports. Additional information may be provided by individual towns; some towns maintain pavement management databases. Existing data will be requested from individual towns. The proposed pavement rating system will be determined in coordination with the towns and MassDOT based on the Office of Transportation Planning research task on pavement management.

Products: Assessment of pavement management needs and inventory of other roadway attributes such as sidewalk availability and serviceability.

Schedule:

- Evaluation of existing data, coordination with communities, review of methodologies [January-March 2023]
- Schedule & coordination of data collection [March-April 2023]
- Data Collection [May-August 2023]
- Status Report [Fall 2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$ 27,000

TASK 2.5 – HEALTHY TRANSPORTATION/COMPLETE STREETS SUPPORT

Background: The goal of this task is to support the MassDOT Complete Streets and Safe Routes to School programs. Six Cape Cod towns have had Complete Streets prioritization plans approved to date: Sandwich; Eastham; Mashpee; Orleans; Bourne; and Falmouth. Additionally, Harwich has recently been approved for a Safe Routes to School project. The Cape Cod Commission works closely with the towns and programs to ensure Cape Cod communities are competitive for available funds. Commission staff is preparing to work with Barnstable and Brewster on Complete Streets Prioritization Plans in the upcoming year

Objectives: To assist towns with applying for Complete Streets and Safe Routes to School funding.

Procedures: Provide assistance to municipalities that have not yet registered to be a part of the Complete Street program. Commission staff expect to continue engagement with the town of Brewster and Orleans. Continue to support the existing prioritization plans of Sandwich, Eastham, Mashpee, Orleans, Bourne, and Falmouth. Coordinate with towns to retrieve MAPIT credentials and assisting them with Project Information Forms and Project Need Forms to secure Safe Routes to School projects.

Previous Studies/Work:

- Bourne Complete Streets Prioritization Plan
- Falmouth Complete Streets Prioritization Plan
- Orleans Complete Streets Prioritization Plan
- Eastham Complete Streets Prioritization Plan
- Town centers bicycle and pedestrian connections study
- Pedestrian and Bicycling sections of Regional Transportation Plan
- 2012 bicycle route/transit route connectivity report
- Technical support for town-based bicycle routing
- Cape Cod National Seashore Integrated Bicycle Plan, 2010
- Outer Cape Bicycle and Pedestrian Master Plan

Products: Draft and final reports

Schedule:

- Update to the JTC on Complete Streets adoption [Winter 2022]
- Assistance to towns as requested [Oct. 2022-Sept 2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
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FHWA/MassDOT	\$30,000
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TASK 2.6 – GEOGRAPHIC INFORMATION SYSTEM

Objectives: To maintain and improve the Geographic Information System for Cape Cod to provide an analysis tool for transportation decision-making.

Ongoing Work:

- Integration of Massachusetts DOT Roadway Inventory Files
- Development of geographic land use information for transportation planning
- EV Charging Station Data viewer
- Updates to Cape Cod Crash Dashboard

Procedures: Importing of transportation-related geographic information from state, federal, local and other sources into Cape Cod’s Geographic Information System; editing as needed; provide database, digital, and graphic outputs of geographic information as required. Staff will also continue to expand and support virtual public engagement tools to ensure ease for users and to keep the public involved in the planning process.

Previous Studies/Work

- Cape Cod Crash Dashboard
- Cape Cod Census Data Viewer
- Preparation and analysis of pavement data
- Updates to Cape Cod Traffic Counts viewer
- Study area maps for RSAs, corridor studies, and other technical assistance projects

Products: Digital files for input into specialized transportation analyses; graphic output of maps (paper, .jpg, .pdf as required).

Schedule:

- Update to EV Charging Data viewer [Winter 2023]
- Update to traffic counts viewer [Fall 2023]

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
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FHWA/MassDOT	\$ 50,000
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Task #3 – Short- and Long-range Transportation Planning

The Cape Cod MPO includes a close partnership between member agencies and the Cape Cod Regional Transit Authority. Many of the planning strategies resulting from Task 3 efforts will capitalize on the services that the Cape Cod RTA has to offer.

Livability Statement

Livability refers to the social and environmental quality of an area as perceived by residents, workers, and visitors. The U.S. Department of Transportation considers the principle of Livability to be essential to the success of regional transportation planning. Livability directly benefits people who live in, work in or visit Cape Cod, increases property values and business activity, and it improves public health and safety. Livability is largely affected by conditions in our public spaces, places where people naturally interact with each other and their community, including roads, conservation lands, transportation hubs and other public facilities, and so is affected by public policy and planning decisions.

Transportation decisions can have a major impact on Livability. Streetscapes that are attractive, safe and suitable for a variety of transportation modes (particularly walking) are a key factor in Livability. Traffic safety, traffic noise and local air pollution, affordability, impervious surface coverage (i.e., the portion of land devoted to roads and parking), preservation of environmental and cultural structures, and opportunities for recreation are all Livability factors often affected by transportation policies and practices. Transportation decisions can also affect social interactions and community cohesion. Pedestrian-friendly streets create opportunities for people to meet and interact, helping to create community networks. The MPO continues to support Livability through the following planning tasks in this UPWP.

TASK 3.1 – STATION AVENUE (YARMOUTH) CORRIDOR STUDY

Background: Station Avenue is a major north-south transportation route in the Town of Yarmouth. Station Avenue provides access to and from Route 6 on the northern end of the corridor and access to Dennis-Yarmouth Regional High School to the south. The corridor is host to numerous businesses and a Cape Cod Rail Trail trailhead. The Town is currently undergoing a school expansion project that is combining the middle schools from Yarmouth and Dennis near the high school. There is a traffic signal being proposed at the new middle school entrance along Station Avenue.

The Route 6 off-ramps have created challenges along the corridor. The intersection of the ramps and Station Avenue is currently non-signalized and often experiences

Cape Cod Unified Planning Work Program for FFY2023

congestion with the traffic signal at Whites Path. Congestion is a noted challenge year-round but increases in the peak summer season. South of Whites Path is a two-way left center turn lane (TWLCTL) which extends from the signal at Whites Path to the signal at Old Town House Road. Station Avenue at Whites Path was ranked #27 on the CCC's Top 50 Crash Locations analysis in 2019. At the intersection there were 45 crashes from 2012-2016. There has been one fatal crash along the corridor since 2012.

Objectives: The Cape Cod Commission, under the Unified Planning Work Program, will work with the Town of Yarmouth and MassDOT to conduct a corridor planning study to look at the existing conditions of Station Avenue and prepare a suite of alternatives to improve safety, reduce congestion, and accommodate all users.

Project Limits: The study area consists of Station Avenue from the interchange at Route 6 to Regional Avenue south of Dennis-Yarmouth High School.

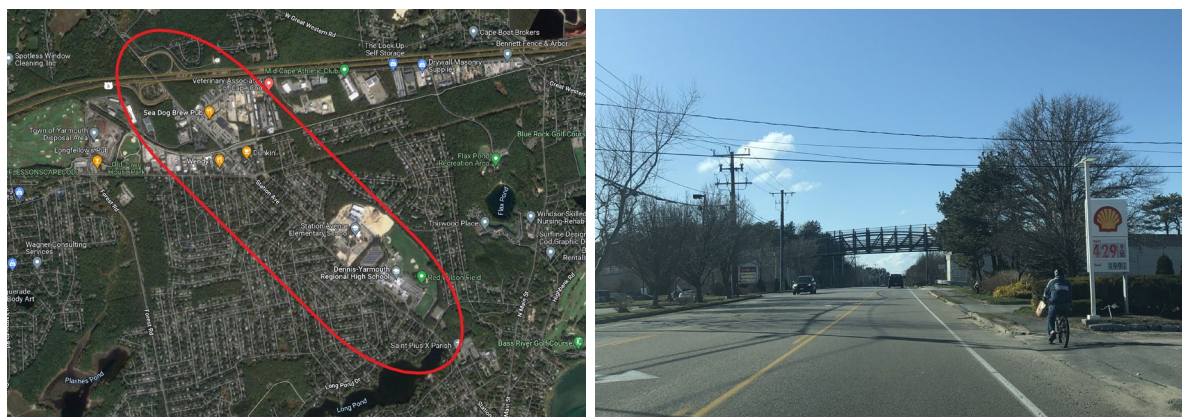


Figure 1 –Station Ave Study Area (left); Station Avenue (right)

Task A: Project Initiation

Commission staff will gather past studies and develop a plan for analysis of the study area. This task will include meeting with Commission staff and a consultation meeting with Town of Yarmouth staff and MassDOT District 5.

Task A Product: Final Scope of Work and Public Participation Plan and kickoff meeting summary

Task B: Data Collection/Mapping

Commission staff will gather data including crash locations, roadway geometry, traffic volumes, pedestrian/bicycle connections and land use information. At a minimum, traffic volume data will be collected at multiple locations along Station Avenue and approaching roadways.

Commission staff will visit the study area to evaluate and photograph conditions. Town staff will be invited to attend the site visit.

Task C: Public Informational Meeting

Commission staff will prepare for and host a public informational meeting in or near the study area where opportunities and constraints along the corridor will be identified. The meeting may be held virtually if the ongoing public health concerns are still present. The meeting will include a brief presentation including information gathered as part of the first two tasks and focus on input from the stakeholders in attendance at the meeting.

The Commission staff will provide meeting materials, including sign-in sheets, and comment forms. Cape Cod Commission staff representatives at the meeting will include at least two key personnel knowledgeable of the project. CCC staff will work with The Town of Yarmouth to secure the locations, dates, times, and advertising for the meetings.

Task C Product: Summary of Listening Session and Public Comments

Task D: Concept Development and Refinement

Information collected during the previous task will be reviewed with Town of Yarmouth staff. Conceptual design plans will illustrate options for corridor improvements with a minimum of 3 alternatives. One of these alternatives will be the “no-build” scenario and will form the basis of comparison for any of the “build” alternatives.

Task D Product: Preliminary Concepts and Summary of Feedback

Task E: Public Review of Concepts

After review of the preliminary concepts by Commission, MassDOT District 5, and Town staff, the preliminary concepts will be presented at a public meeting. Feedback on the preliminary concepts will be used to refine those concepts.

Task E Product: Summary of Public Meeting

Task F: Draft and Final Report

Concepts will be refined based on public comments and feedback from Town, MassDOT District 5, and Commission staff.

Refined concepts will be prepared as part of a draft report. The draft report will also include an analysis of each alternative’s impact on traffic flow and safety.

Product: All the information and comments received will be compiled into a final report document and delivered to MassDOT, the Town of Yarmouth, FHWA and FTA.

Schedule: The schedule for this effort allows for completion by October 2023. Milestones include coordination meetings with the Cape Cod Joint Transportation Committee and updates to the Cape Cod Metropolitan Planning Organization.

- Needed data collection (FY 2022) [Summer of 2022 and Fall 2022, as needed]
- Review of methodology/project initiation [Ongoing]
- Public meeting with Stakeholders: Winter 2023
- Problem identification and development of alternatives [Spring 2023]
- Analysis of Alternatives [Summer 2023]
- Draft report/public meeting [Fall 2023]
- Final report [Fall 2023]

Beneficiary Community: Yarmouth

Previous Corridor Studies:

- East Hyannis Route 28 Corridor Study
- Mashpee Rotary Corridor Study
- Route 6 Eastham Corridor Study
- Route 6 Safety Study: Ramp and Shoulder Design
- Route 28 Cotuit Corridor Study
- Route 28 Eastern Mashpee Corridor Study

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$65,000

TASK 3.2 – TRANSPORTATION SAFETY

Objectives: To conduct and assist with Roadway Safety Audits (RSAs) at MassDOT-identified high crash locations across Cape Cod, as well as assisting municipalities with any other small technical assistance needs that arise.

Previous Work:

Commission staff conducts several RSAs every year, while also participating in RSAs hosted by other agencies. A full list of completed RSAs with report links can be found here: <https://www.capecodcommission.org/our-work/transportation-safety/>

The 2019 Barnstable County High Crash Locations Report (top fifty crash location report) provided analysis based on frequency, crash rate, Equivalent Property-Damage Only (EPDO), and EPDO rate using geo-located crash data to the extent available. Creation of the report also included an interactive portal, Cape Cod Crash Dashboard, which will help identify high crash intersections across Cape Cod and help inform future Roadway Safety Audits.

Procedures: With town and state staff members present, RSAs will be conducted. A review of the crash history as well as the existing layout of the study area will be

conducted. RSA team members will visit the roadway locations and strategize solutions for making the roadway safer for all users. Upcoming RSAs include:

- Report outlining non-motorist crashes (Spring 2023)
- Station Avenue at White's Path – Yarmouth (Spring 2023)
- Route 28 near Bell Tower Mall - Centerville (anticipated completion fall 2022)

Commission staff will also begin to take an in-depth analysis on non-motorized crashes across the region. Staff will focus on crashes that involved a pedestrian or bicyclist and analyze roadway locations, conditions, and severity of these incidents. Staff will compile collected data into a report and share with the JTC and MPO upon completion. The analysis will be consistent with the 2018 MassDOT Strategic Highway Safety Plan.

Products:

- Recommendations will be published in a written report to be made available online. Other study materials will be produced and made available via internet including maps and charts, handouts, and crash diagrams.
- Reports and memoranda published to include analyses and recommendations for improvements at other safety problem locations as appropriate.
- Commission staff will also update the Cape Cod Crash Dashboard with the most recent available crash data and rank the top 50 crash locations on Cape Cod accordingly.
- Presentation and report summarizing the analysis of the non-motorized crashes across Cape Cod

Schedule: Anticipated RSA Schedule-

- Route 28 near Bell Tower Mall – Centerville [Fall/Winter 2022]
- Station Avenue at White's Path – Yarmouth [Spring 2023]
- Presentation of non-motorized crash analysis [Spring 2023]

Beneficiary Communities: All communities

<u>Funding source</u>	<u>Amount</u>
FHWA/MassDOT	\$65,000

TASK 3.3 – SIDE-PATH CROSSING INVENTORY

Background: To identify special safety and operational needs by completing an inventory of all side-path crossings across Cape Cod. In 2021 CCC staff completed a rail trail crossing inventory, and given the success of that project, staff will now inventory side-path crossings and complete a report and mapping tool to display the data and offer recommendations.

A side-path is best defined as a shared use path that is located adjacent and parallel to a roadway. A side-path offers a safe, off-road, bicycling experience away from the main travel lane. Many side-paths on Cape Cod are signed at crossings, while many more are not. Staff will research best practices of crossing treatments for side-paths.

Objectives: The goal of the inventory is to provide recommendations that will improve safety for all users as well as identifying locations for potential funding opportunities.

Procedures:

- Commission staff will begin data collection activities in the summer of 2022 and continue into the fall of 2022 as needed.
- Staff will take the collected data and begin to complete an analysis of existing conditions and prepare a report and online mapping tool to show data and offer recommendation.

Products: A report and online mapping tool

Beneficiary Communities: All

Schedule:

- Data collection [Summer/Fall 2022]
- Report/mapping tool [Winter/Spring 2023]

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$45,000

TASK 3.4 – CLIMATE ACTION PLAN IMPLEMENTATION

Background: Completed in 2020, the Cape Cod Commission performed an Electric Vehicle (EV) Charging Infrastructure inventory and siting analysis. The project involved a data collection portion, where staff visited and documented existing EV charging stations and created a mapping tool to display all the existing infrastructure. CCC staff then performed a siting analysis, looking at several components to better understand where future EV infrastructure would be best suited.

Given the positive feedback and the increase in infrastructure since the completion of that analysis, CCC staff is going to produce an update to the siting analysis and collect data at new EV charging locations. Work with municipalities and other partner agencies to identify and seek funding opportunities for charger installation.

Additionally, building on the municipal Low Lying Roads projects, staff will compile a regional low Lying roads data set to inform the RTP and other regional planning efforts. Furthermore, Commission staff will seek funding opportunities to address priority locations identified through the low-lying road projects.

Products:

- Data and Information
 - Updating data for the regional EV charging station siting tool
 - Collecting and analyzing data from new EV charging stations
- Technical Support and Engagement
 - Support municipalities in the implementation or expansion of infrastructure to support EV charging
-
- Low Lying Roads data set
 - To assist in seeking funding opportunities to address priority locations.

Schedule:

- Low Lying Roads data set [Spring 2023]
- EV Charging Data viewer updates [Summer 2023]
- Ongoing technical support and engagement

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$50,000

TASK 3.5 – FOLLOW-UP ON PREVIOUS TRANSPORTATION PLANNING STUDIES

During development of particular UPWP studies, unforeseen external factors may cause delay of completion within a particular fiscal year. The most common cause of delay is the need for additional public outreach or an expanded scope due to discovery of factors such as environmental constraints. In some cases, projects are delayed due to the need for additional review by outside agencies. Even upon study completion, additional staff time may be required as a project moves into the design and TIP funding phases.

Objectives: To allow for completion of and/or follow-up work on special transportation studies of prior UPWPs.

Procedures:

- Incorporate additional public review into UPWP study, produce final reports
 - Task 2.1 (Cape Cod Traffic Data Collection Program)
 - Task 3.1 (Station Avenue Corridor Study)
- Participate in study implementation efforts with state and local agencies

Products: 2022 Traffic Counting Report. Technical analysis (memorandums and emails) to Town staff/committees on implementation of past studies.

Schedule: As needed, October 2022-September 2023

Beneficiary Communities: Towns containing follow-up studies

<u>Funding source</u>	<u>Amount</u>
FHWA/MassDOT	\$40,000

Task #4 – Technical Assistance Activities

TASK 4.1 – TRANSIT PLANNING

Objective: To provide transit planning and technical assistance services in coordination with the Cape Cod Regional Transit Authority and Cape Cod towns receiving transit service from the CCRTA or other transit organizations. Objectives include identifying unmet needs of the transit community and keeping the Cape’s transit system in compliance with federal, state and local policy and legislation.

Procedures:

- Assist CCRTA with a regional fleet EV transition study
- Work with the CCRTA on the installation of fix-it stations at key locations
- Identify opportunities to implement Transit Priority Treatments and improvements identified in the eliminating Transit Barriers, Closing the Gaps Report, and the recent bus stop inventory

Additional tasks may be identified by the Cape Cod Commission, CCRTA and Cape Cod Towns follows:

- Evaluate and develop proposed transit services
- Integrate transit planning into corridor studies
- Evaluate existing routes for demographic coverage as presented in the Comprehensive Service Assessment

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- Provide guidance on regulatory compliance with Title VI, Environmental Justice and other federal or local requirements
- Assist in making digital and paper maps or schedules
- Assist in coordinating marketing and outreach efforts
- Assist in Transit Oriented Development planning of the Hyannis Transportation Center
- Support the CCRTA in supporting the evolving transportation demands caused by COVID-19

Coordination will be facilitated by regular meetings with CCRTA staff to discuss ongoing transit studies and inclusion of transit in Cape Cod Commission corridor studies. Projects may be reviewed and assisted by consultants in coordination with CCRTA staff.

Previous Work: Previous transit planning has been performed under specific tasks included in corridor and other regional transportation studies. Projects specific to transit performed by the Cape Cod Commission are listed but not limited to as follows:

- Draft Bus Stop Inventory Report
- 2019 Coordinated Public Transit – Human Service Transportation Plan
- 2016 Eliminating Transit Barriers
- 2015 Comprehensive Service Assessment
- 2015 Buzzards Bay Commuter Rail Local Impacts Report

Proposed Products:

- Methodology memorandum for ferry surveys and initial survey results
- Updated GIS transit route planned application
- Emails/memorandums on opportunities to implement Transit Priority Treatments and improvements identified in the eliminating Transit Barriers, Closing the Gaps Report, and the recent bus stop inventory

Schedule:

- Coordination on fixit station installation [Fall/Winter 2022]
- Emails/memorandums on opportunities [Winter 2022/23]
- Other coordination efforts ongoing

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$ 62,500

TASK 4.2 – SUPPORT FOR PASSENGER RAIL SERVICE

Objective: To support planning and introduction of commuter rail feeder service to Bourne connecting to MBTA commuter rail in coordination with the MBTA, MassDOT, Town of Bourne and CCRTA. Previous studies summarized reports and analyzed impacts to local intersections considering the introduction of commuter rail to Buzzards Bay under assumptions provided in previous documents. The Cape Rail Study, completed in FFY2021, presented a feasibility analysis of the extension of passenger rail to the Town of Bourne. This task includes a follow-up on the Cape Rail Study.

Products: Email communications, presentations, and additional analyses as requested by the MassDOT, the CCRTA, or Town of Bourne.

Schedule: Dependent on requests; October 2022 to September 2023

Beneficiary Community: Bourne

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$25,000

TASK 4.3 – TRANSIT DATA COLLECTION AND ANALYSIS

Objective: Working with the CCRTA, the goal is to collect and map data on bus stops, routes, and ridership necessary to continually improve service. Consideration and inclusion of the MassDOT engineering directives and design guidelines and Transit Asset Management (TAM) plans will be explored.

Procedures: Commission staff, along with the assistance of the RTA, Steamship Authority (SSA) and Hy-Line Cruises, will conduct ridership surveys on SSA and Hy-Line vessels from Hyannis to Nantucket to understand the percentage of commuters using these ferry services. Surveys will be collected on random representative days throughout calendar year 2022 and all passengers on all ferries will be surveyed the day a survey is being conducted. All data will be presented to the Federal Transit Authority (FTA).

Commission staff will collect and analyze data in support of the CCRTA fleet EV transition study.

Products:

- Detailed methodology memorandum for the ferry survey and a calendar year 2022 survey of ferry passengers from Hyannis to Nantucket (final memorandum to FTA to be completed under the FFY 2023 UPWP)

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- A database of all data collected on SSA and Hy-Line ferries and a memo to be prepared for FTA documenting the percentage of commuters on all ferries.

Schedule:

- Ferry survey methodology memorandum [Spring 2022]
- Conduct ferry surveys [2022/23] – note some data collection and final memorandum will be completed under the FFY 2023 UPWP

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$50,116

TASK 4.4 – OTHER TECHNICAL ASSISTANCE REQUESTS

Objectives: To provide the state, the towns, and the region with technical transportation assistance, as needed.

Previous Work:

- Parking Study in Town of Sandwich (2021)
- Support communities in preparation of grant requests (i.e., MassTrails, Shared Spaces, and Bottleneck grants)
- Supported MVP and EDA grant funded project to work with 9 Cape towns to identify low-lying roads, develop criticality of road segments, and identify potential solutions to improve climate resiliency for selected low-lying roads.
- Queen Anne Road Speed Study (2019) and follow up letter and analysis for Town of Harwich

Procedures: Assist towns with infrastructure improvements including pedestrian, bicycle, transit rider shelter locations, roadway reconfigurations, corridor studies, etc. Commission staff will assist towns applying for grants and offer support on smaller technical requests.

Products: Letters, reports, memoranda, and analyses

Schedule: Continuous throughout the year as requested; October 2022 to September 2023

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$ 42,288

Task #5 – Cape Cod Commission Transportation Planning and Regulatory Activities

TASK 5.1 – REGULATORY

Objectives: The primary purpose of the CCC regulatory program is mitigation of transportation impacts in a manner consistent with Barnstable County’s Regional Policy Plan. Additional goals are as follows:

- Ensure proper review and analysis of traffic impacts of major residential and commercial developments throughout the region.
- Provide such information to the CCC, MassDOT, EOEA-MEPA Unit, town officials, and other interested parties, as required.
- Recommend mitigation measures and work with interested parties in applying conditions to projects.
Assist the Cape Cod Commission regulatory staff in the review of developments of regional impact.
- Review and comment on Environmental Notification Forms (ENFs), Environmental Impact Reports (EIRs), and Developments of Regional Impact (DRI).

Previous Work: Previous work includes analysis, review, and comment on ENFs, EIRs, and Cape Cod Commission regulatory review.

Procedures:

- Review ENF, EIR, EIS, MIS and/or traffic analyses
- Compute trip generation estimates
- Review traffic counts on adjacent street network; conduct special traffic counts
- Perform preliminary site visit
- Compute LOS at site drive and area intersections, as necessary
- Attend MEPA site visit, if applicable
- Discuss project with interested parties
- Identification of appropriate mitigation measures
- Review mitigation measures for compliance and consistency with the Regional Policy Plan
- Written and oral comments and testimony to the Cape Cod Commission, MassDOT District 5, MEPA, the towns, and other interested organizations as required

Products:

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- Discussions with MEPA, MassDOT, project proponents, and town officials – provide written comments
- Testimony at DRI and other meetings as required
- Advancement of measures to mitigate traffic impacts
- Analysis and recommendation on transportation improvements necessary to mitigate impacts

Schedule: As required to meet CCC, MEPA, MassDOT, and local deadlines

Beneficiary Communities: All

The funding amount for this task varies on the number and scale of projects submitted for review.

TASK 5.2 – PLANNING

Objectives: To assist communities and the region in the development and implementation of Local Comprehensive Plans (LCPs), Districts of Critical Planning Concern (DCPCs), and economic development in designated growth centers.

Previous work:

- Regional Policy Plan updates
- Past assistance in the development of LCPs in various Cape Cod towns

Procedures: Advisory and analytical assistance

Products: Testimony, letters, LCPs, DCPCs, and Technical Memoranda as required

Schedule: As established by the Cape Cod Commission and the Towns and legislated requirements

Beneficiary Communities: All

The funding amount for this task varies on the number of municipal requests.

TASK 5.3 – OTHER TRANSPORTATION ACTIVITIES

Objectives: To perform other transportation activities and transportation program management.

Previous Work: Past transportation program management

Procedures:

Cape Cod Unified Planning Work Program for FFY2023

- Commission staff will assist towns in local transportation planning efforts including intersection safety analysis, trip generation calculations for small scale development, and TIP guidance.
- Commission staff will evaluate the impact of TIP project requirements relative to community character and environmental impacts
- Commission staff will also direct town in the appropriate MassDOT official/MassDOT department to address local concerns.

Products: Technical memoranda, email responses, telephone responses to member communities and stakeholders.

Schedule: Continuous throughout the year

Beneficiary Communities: All

The funding amount for this task varies on the number of stakeholder and agency requests.

Distribution of UPWP Efforts

Equity Analysis by Community

The table below identifies the affected communities by UPWP efforts included in UPWPs for the past five years, as well as this current UPWP. Individual UPWP subtasks may affect one or more towns, or in some cases, all fifteen communities of Barnstable County. The map on the following page shows the affected locations of these studies within Barnstable County.

Table 3 - Geographic Distribution of UPWP Efforts

Town	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total FY2018-23
Barnstable	2	1	2	1	1	1	8
Bourne	2	1	2	0	1	0	6
Brewster	1	0	0	0	0	1	2
Chatham	0	1	0	0	0	0	1
Dennis	1	0	2	0	0	0	3
Eastham	1	0	0	0	0	0	1
Falmouth	0	0	0	0	1	0	1
Harwich	1	0	0	0	0	0	1
Mashpee	0	1	0	0	0	0	1
Orleans	1	0	1	0	0	0	2
Provincetown	1	0	0	0	0	0	1
Sandwich	2	1	0	0	0	0	3
Truro	1	0	0	0	0	0	1
Wellfleet	0	0	0	0	0	0	0
Yarmouth	1	0	0	1	1	1	4
<i>All Towns</i>	<i>18</i>	<i>19</i>	<i>22</i>	<i>23</i>	<i>25</i>	<i>23</i>	<i>132</i>

The regional nature of many of the UPWP efforts encompass all fifteen communities at an average of over twenty studies per year. The table above cites regional (“All Towns”) and the smaller-scale efforts for the individual towns or groups of towns (e.g., an Outer Cape study may be counted in two or more Outer Cape towns). Commission staff acknowledges that improving safety in all Cape communities is a priority and will continue to assist and follow up with municipalities that have yet to see TIP funding in their town. For example, the Commission conducted a corridor study along Route 6 in Eastham, staff will continue to aid the town in seeking funding opportunities for improvements for this crucial, regional corridor.

These efforts are tailored to problem identification and are scaled accordingly. For example, a single effort in Barnstable (e.g., Hyannis Access Study Implementation) may lead to a \$50 million-dollar transportation improvement while three studies in a smaller community may reflect small-scale intersection improvements costing much less.

Equity Analysis by Impacted Population

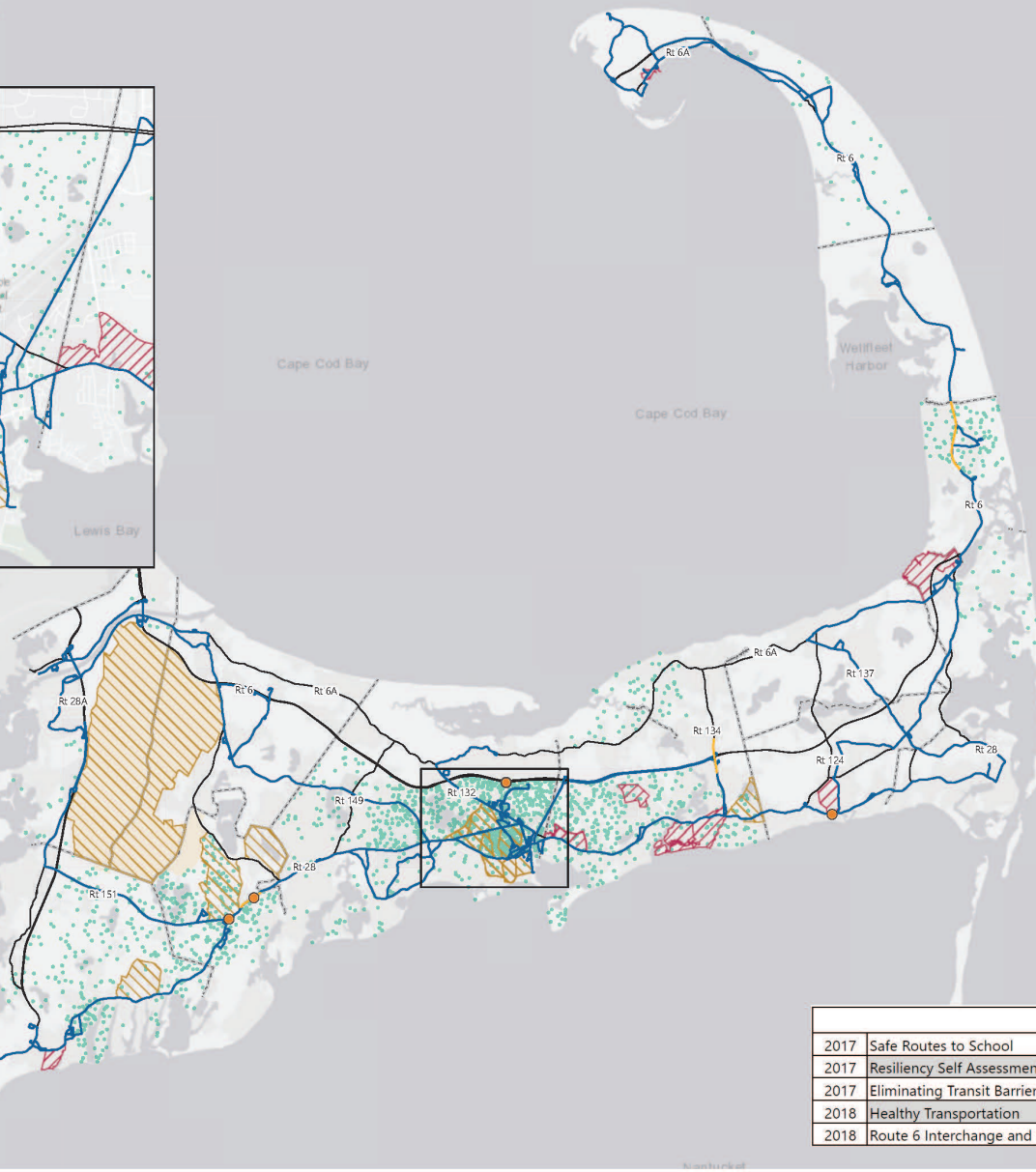
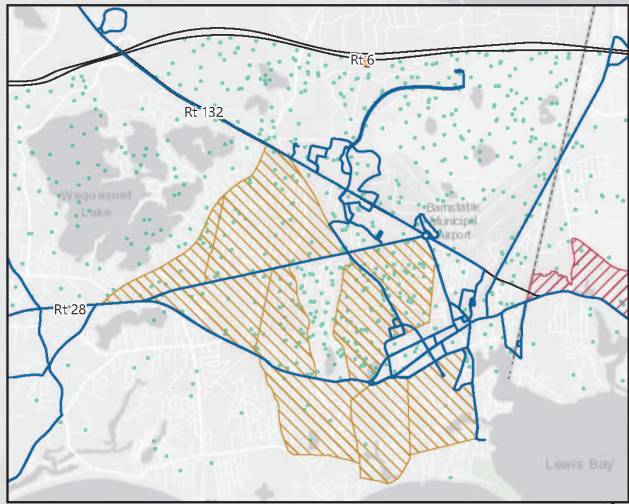
An equity analysis of UPWP subtasks was conducted with respect to anticipated impacts on minority, low income, and limited English proficiency populations over the last five years and the current year. The maps at the end of this Appendix show the locations of projects in relation to identified concentrations of these populations both for the current UPWP and the five-year look back.

The only geographically specific study in 2023 is the Station Avenue Corridor Study in Yarmouth. This study will positively benefit all impacted populations as noted above. In the figure below, all geographically specific UPWP studies are outlined to identify the impacted populations they benefit. The majority of geographically specific locations do benefit these impacted locations. These estimates exclude regional projects that have the potential to benefit all transportation users on Cape Cod.

Table 4 - Geographic Distribution of UPWP Efforts

Project	Year	Impacted Population
Station Ave. Corridor Study	FFY 2023	I, M
Bicycle Wayfinding Analysis	FFY 2022	I, M, LEP
Route 28 East Hyannis Corridor Study	FFY 2021/2022	I, M, LEP
Route 134 Dennis Corridor Study	FFY 2020	I, M, LEP
Bourne Bike Plan	FFY 2020	I, LEP
Mashpee Rotary Study	FFY 2019	M, LEP
Eastham Route 6 Corridor Study	FFY 2018	LEP

Note: Based on projects within 3 miles of the populations identified on the maps on the following page.



MassGIS, Esri, HERE, Garmin, USGS, EPA, NPS, MassGIS, Esri,

Regional Projects			
2017	Safe Routes to School	2019	Sidewalk/Bicycling Network Study
2017	Resiliency Self Assessment Tool	2020	Climate Change: EV Infrastructure
2017	Eliminating Transit Barriers	2020	Regional Bike and Ped Plan Updates
2018	Healthy Transportation	2021	Rail Trail Crossing Inventory
2018	Route 6 Interchange and Shoulder Study	2021	Managed Retreat Best Practices

**Five Years Review (2018-2022)
Unified Planning Works Program (UPWP)
Minority, Low Income, and Limited
English Proficiency Populations**

- UPWP Specific Location Improvement
- UPWP Road Segment Improvement
- Corridor Study
- CCRTA Route

- Minority Block Group
- Low Income Block Group

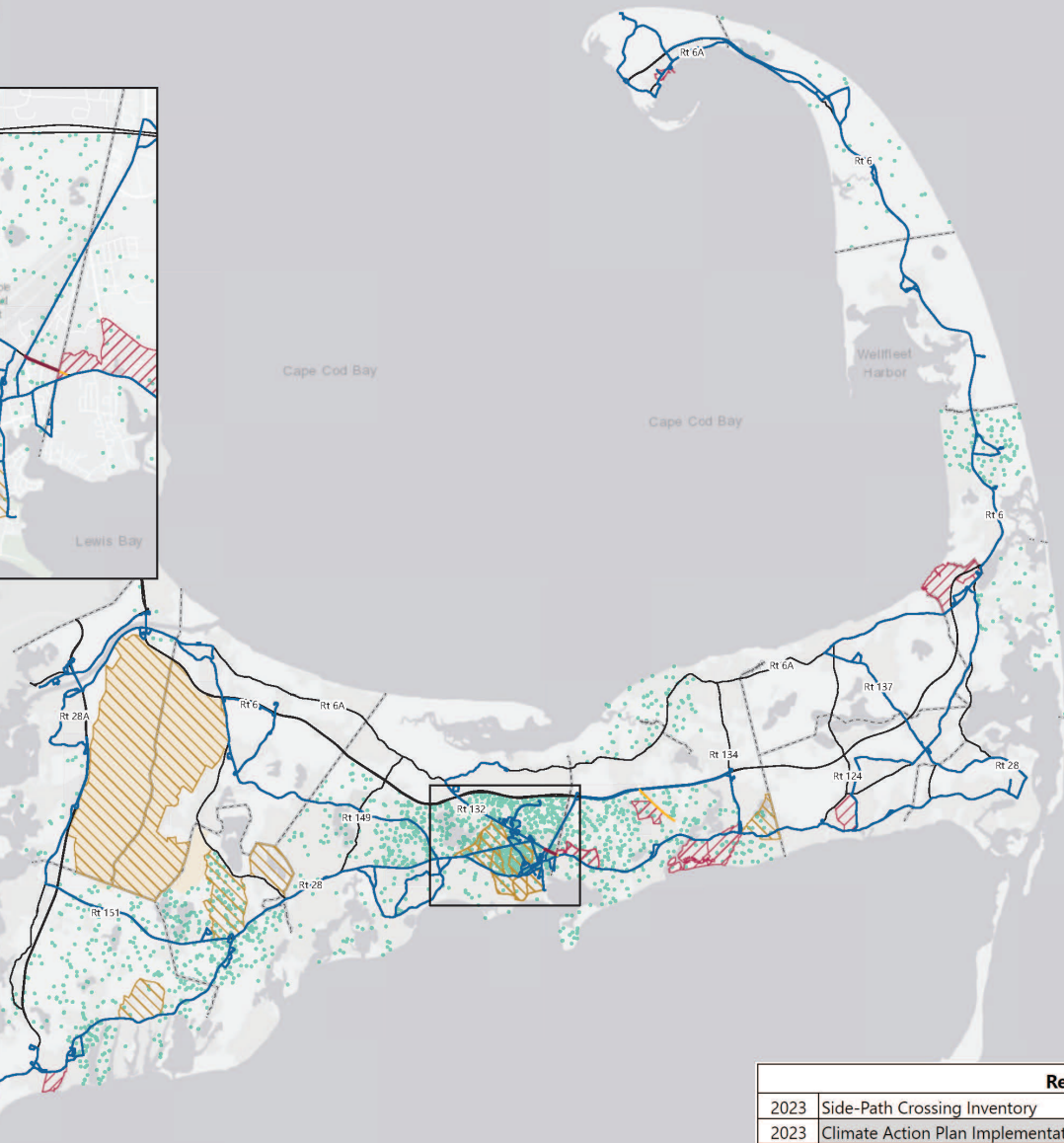
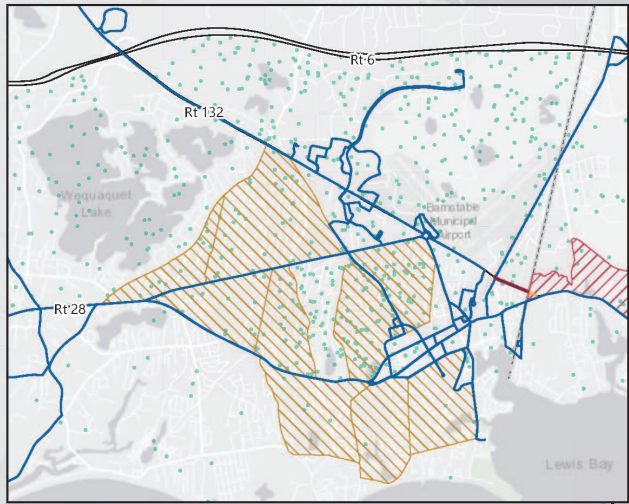
Each point represents one Portuguese speaking individual who speaks English less than very well

- Major Road
- Town Line
- Joint Base Cape Cod

Income: Median household income of census block is less than or equal to 60% Barnstable County median household income (\$59,000)
Minority: 15% or more residents of census block self-identify as a race other than white

Barnstable County Census Block Minority Population:
Mean % Minority: 6.45%
Median % Minority: 6.39%
Population classified as minority represents residents who self-identify as a race other than white





MassGIS, Esri, HEI
USGS, EPA, NPS, I

Regional Projects			
2023	Side-Path Crossing Inventory	2023	Regional Transporta
2023	Climate Action Plan Implementation	2023	Transportation Safe
2023	Data Collection and Analysis	2023	Healthy Transportat

2023 Unified Planning Works Program (UPWP)
Minority, Low Income, and Limited
English Proficiency Populations

- UPWP Road Segment Improvement
 - Corridor Study
 - CCRTA Route
- Minority Block Group
- Low Income Block Group

Each point represents one Portuguese speaking individual who speaks English less than very well

- Major Road
- Town Line
- Joint Base Cape Cod

Income: Median household income of census block is less than or equal to 60% Barnstable County median household income (\$59,000)

Minority: 15% or more residents of census block self-identify as a race other than white

Barnstable County Census Block Minority Population:
Mean % Minority: 8.45%
Median % Minority: 6.39%

Population classified as minority represents residents who self-identify as a race other than white



Glossary

Table 1. Acronyms

ACRONYM	MEANING
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
BIL	Bipartisan Infrastructure Law
CAAA	Clean Air Act Amendments of 1990
CCC	Cape Cod Commission
CCJTC	Cape Cod Joint Transportation Committee
CCMPO	Cape Cod Metropolitan Planning Organization
CCRTA	Cape Cod Regional Transit Authority
CIP	(MassDOT) Capital Investment Plan
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMP	Congestions Management Plan/Process
CMR	Code of Massachusetts Regulations
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CTPS	Central Transportation Planning Staff
CZM	(Massachusetts) Coastal Zone Management
DEP	Department of Environmental Protection
DOT	United States Department of Transportation
DRI	Development of Regional Impact
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EOEA	(Massachusetts) Executive Office of Environmental Affairs
EPA	Environmental Protection Agency
FA	Federal Aid
FAST	Fixing America's Surface Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY, FFY	Fiscal Year, Federal Fiscal Year
GPS	Global Positioning System
HSIP	Highway Safety Improvement Program
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation System(s)
LOS	Level of Service
L RTP	Long Range Transportation Plan (see RTP)
MAP	Mobility Assistance Program
MAP-21	Moving Ahead for Progress in the 21st Century
MassDOT	Massachusetts Department of Transportation

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MEPA	Massachusetts Environmental Protection Act
MHD	Massachusetts Highway Department or MassHighway (now MassDOT/Highway Division)
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization (see CCMPO)
NAAQS	National Ambient Air Quality Standards
NFA	Non-Federal Aid
NHPP	National Highway Performance Program
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NOx	Nitrogen Oxides
PEA	Planning Emphasis Area
PPP	Public Participation Plan
PTASP	Public Transportation Agency Safety Plan
RPA	Regional Planning Agency
RPP	Regional Policy Plan
RSA	Roadway Safety Audit
RTA	Regional Transit Authority (see CCRTA)
RTP	Regional Transportation Plan
SIP	State Implementation Plan
SOV	Single Occupancy Vehicle
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TAM	Transit Asset Management
TAP	Transportation Alternatives Program
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TSM	Transportation Systems Management
UPWP	Unified Planning Work Program
USGS	United States Geographical Survey
UZA	Urbanized Area
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
VPD	Vehicles Per Day
VPH	Vehicles Per Hour

Appendices

APPENDIX A: REGIONALLY SIGNIFICANT TRANSPORTATION PLANNING STUDIES FUNDED BY OTHER SOURCES

Cape Cod Bridges Program

MassDOT Highway Division has started on one the most important transportation programs in the region: addressing the aging Sagamore and Bourne bridges and making improvements to the surrounding roadway networks. There are still many important factors under consideration, such as defining the program's purpose and need and the development of bridge and roadway alternatives.

Program schedule:

- Phase 1:
 - Data collection - including environmental conditions and traffic patterns.
 - Public outreach and involvement efforts are underway.
- Phase 2: Based on public input, MassDOT develops and refines bridge and roadway options (approximately 2 years).
- Phase 3: MassDOT identifies preferred options. Environmental documentation process begins. Design development (approximately 4 years).
- Phase 4: MassDOT completes preliminary design and environmental permitting (approximately 3 years).
- Phase 5: Construction underway (approximately 7 years).
- Delivery: The Cape Cod Bridges Program is completed.

**There are many factors that will influence schedule, including but not limited to: identification of construction funding, determination of the National Environmental Policy Act (NEPA) Class of Action, public feedback, packaging of construction contracts and construction procurement methodology, and more.*

Cape Cod National Seashore Multimodal Transportation Plan

The purpose of the Cape Cod National Seashore (CACO) Multimodal Transportation Plan is to explore, evaluate, and recommend multimodal transportation access and connectivity in and around CACO. The Multimodal Transportation Plan is proposed to be developed in two phases: Phase I, Preliminary Project Planning; and Phase II, Comprehensive Transportation Plan. Subtasks as part of Phase I include: Project initiation, issue definition/analysis, visitation demand analysis, climate/environmental analysis, multimodal circulation analysis, site visits, preliminary strategy development, stakeholder engagement/workshop, and a preliminary project planning completion report.

The estimated timeline for Phase I is April 2021 through March 2022. Phase II will follow into FFY 2023.

Low Lying Roads

Low lying roads are areas prone to flooding from the combined effects of hazards such as sea level rise, storm surge, and erosion. Upstream freshwater flooding events that have no ocean-based component are not included in the low-lying roads project. Cape Cod is especially vulnerable to coastal storms because of its unique geography and roadways that travel through ever-changing environments. Flooding is currently a regular event on several road segments during extreme high tides and storm events. As seas rise and storms intensify the impact to our coastlines and flooding occurrences will increase in frequency and depth.

Cape Cod Commission staff are working with the towns of Barnstable, Bourne, Brewster, Dennis, Eastham, Orleans, Sandwich, Wellfleet, Truro, and Yarmouth to examine vulnerabilities in the roadway network and identify adaptation alternatives. With funding support from the U.S. Economic Development Administration and the Massachusetts Municipal Vulnerability Preparedness program, the Commission has contracted with the Woods Hole Group to conduct a vulnerability assessment of roadway segments, bridges, and culverts due to flooding from the combined effects of sea level rise and storm surge. The project employs state of the art modeling and community engagement to identify and prioritize low lying roads to target for coastal resiliency action.

The project kicked-off in September 2021 and will be complete in Spring 2023. Efforts are being made to attain funding to replicate this analysis for the remaining five Cape Cod towns in 2022/2023.

Project details can be found here: <https://www.capecodcommission.org/our-work/low-lying-roads-project/>

Complete Streets Prioritization Plans

Several communities on Cape Cod have recently completed Complete Streets Prioritization Plans and others intend too soon. Commission staff recently assisted the Towns of Bourne and Falmouth with their Prioritization Plans which were approved by MassDOT. In the coming year, Commission staff will be assisting the Towns of Barnstable and Brewster with Prioritization Plans. Outreach and online tools will be provided throughout the projects with the goal of having an approved Prioritization Plan for both towns to seek construction funding.

APPENDIX B: FEDERAL FISCAL YEAR 2023 PL FORMULA ALLOCATION

	FFY 23 PL	FFY 22 PL (Distributed)	Δ	FFY 22 PL (Actual)
apportionment obligation authority	\$ 11,858,399	\$ 9,837,301		\$9,634,967
	90.0%	91.0%	16.1%	
federal PL funds only	\$ 10,672,559	\$ 8,951,944		
matching funds added	\$ 13,340,699	\$ 11,260,322		

The recommended PL Allocation Formula was developed by the Massachusetts Association of Regional Planning Agencies and recommended by MassDOT to FHWA, is based upon the following three factors: 40% of available funds divided equally among the ten MPOs, 30% is allocated based on each MPO's relative share of Massachusetts population, and 30% is allocated based on each MPO's relative share of urbanized population. These factors result in the percentages shown.

PL funds are provided to the MPOs from the previous year's federal-aid ("Forward funded")

MPOs PL funded	40% of total funds / ten MPOs		30% of funding for relative size of population		30% of funding for relative size of urbanized population		\$5303 Full Amount w/ Match (FFY 22)		\$5303 Full Amount w/Match FFY 23		Total FFY 22 funding by MPO	Total FFY 23 funding by MPO	Δ
	\$			\$		\$	\$	\$	\$	\$	\$	\$	
MPOs PL funded	\$ 5,336,280			\$4,002,210		\$4,002,210						\$ 13,340,699	
Berkshire	\$ 533,628	131,219	2.03%	\$ 81,427	88,795	1.49%	\$ 59,707	\$ 49,166	\$ 77,358	\$ 615,143	\$ 752,120	\$ 136,977	
Boston	\$ 533,628	3,087,975	47.88%	\$ 1,916,215	3,026,176	50.84%	\$ 2,034,839	\$ 1,962,303	\$ 2,548,266	\$ 5,723,971	\$ 7,032,949	\$ 1,308,978	
CTPS*	\$ 432,239			\$ 1,552,134			\$ 1,648,220	\$ 1,629,031	\$ 2,115,477	\$ 4,675,982	\$ 5,748,069	\$ -	
MAPC	\$ 101,389			\$ 364,081			\$ 386,619	\$ 333,272	\$ 432,790	\$ 1,047,988	\$ 1,284,879	\$ -	
Cape Cod	\$ 533,628	215,888	3.35%	\$ 133,967	198,826	3.34%	\$ 133,693	\$ 91,232	\$ 137,616	\$ 763,338	\$ 938,904	\$ 175,566	
Central Mass	\$ 533,628	556,698	8.63%	\$ 345,454	462,724	7.77%	\$ 311,142	\$ 204,115	\$ 323,722	\$ 1,202,452	\$ 1,513,945	\$ 311,493	
Merrimack Valley	\$ 533,628	333,748	5.17%	\$ 207,104	316,362	5.32%	\$ 212,726	\$ 141,638	\$ 213,344	\$ 941,381	\$ 1,166,802	\$ 225,421	
Montachusett	\$ 533,628	236,475	3.67%	\$ 146,742	171,236	2.88%	\$ 115,141	\$ 80,719	\$ 131,526	\$ 747,979	\$ 927,037	\$ 179,058	
Northern Middlesex	\$ 533,628	286,901	4.45%	\$ 178,034	277,474	4.66%	\$ 186,577	\$ 131,464	\$ 183,105	\$ 884,890	\$ 1,091,344	\$ 206,454	
Old Colony	\$ 533,628	382,408	5.62%	\$ 224,888	342,110	5.75%	\$ 230,039	\$ 130,019	\$ 207,883	\$ 959,201	\$ 1,196,437	\$ 237,237	
Pioneer Valley	\$ 533,628	621,570	9.64%	\$ 385,710	537,074	9.02%	\$ 361,135	\$ 274,585	\$ 408,131	\$ 1,348,622	\$ 1,688,604	\$ 339,981	
Southeastern Mass	\$ 533,628	616,670	9.56%	\$ 382,669	531,236	8.93%	\$ 357,210	\$ 293,706	\$ 426,198	\$ 1,361,900	\$ 1,699,705	\$ 337,805	
	\$ 5,336,280	6,449,550	100.00%	\$ 4,002,210	5,952,013	100.00%	\$ 4,002,210	\$ 3,358,946	\$ 4,667,148	\$ 14,548,876	\$ 18,007,847	\$ 3,458,971	

RPA's SPR funded	Δ	SPR the year before (federal only)	FFY 22 total funding by RPA	FFY 23 total funding by RPA	Δ
Franklin	16.1%	\$ 449,255	\$ 561,569	\$ 652,105	\$ 90,535
Martha's Vineyard	16.1%	\$ 257,637	\$ 322,046	\$ 373,966	\$ 51,920
Nantucket	16.1%	\$ 219,153	\$ 273,941	\$ 318,106	\$ 44,164

* CTPS 5303 includes MassDOT 5303
The SPR funding provided to the RPAs not officially recognized as MPOs is adjusted year-to-year based on the change in funding experienced by the MPOs for their PL funds.

Figure 2 – Unified Planning Work Program Funding (Source: MassDOT)

APPENDIX C: COMMENTS ON PUBLIC DRAFT

The Cape Cod MPO voted to release the draft UPWP for the public review/ comment period at their 1:00 PM virtual meeting on April 25, 2022, officially beginning the 21-calendar-day public comment period.

Public comment opportunities were held in-person on Friday, May 6, 2022, at 10:00 AM at the Hyannis Transportation Center and at a virtual public meeting on Monday, May 9, 2022, at 6:00 PM. These meetings featured a short presentation on the document followed by an opportunity for public comments. Additional opportunities for public comments were gathered at outreach tables located along the region's bike path network. A virtual public meeting of the Cape Cod MPO is scheduled for Monday, May 23, 2022, at 1:00 PM to hear additional public comments and consider endorsement of this document. Details on the online public comment opportunities and the virtual public meeting available at www.capecodcommission.org/mpo.

Comments on this plan were accepted through May 16, 2022, via mail, by facsimile, or via e-mail, as follows:

Mailed:

Cape Cod Commission Transportation Program
David Nolan Jr., Senior Transportation Planner
3225 Main Street (Route 6A)
PO Box 226
Barnstable MA 02630-0226

Sent by facsimile to the attention of David Nolan Jr., Senior Transportation Planner:
FAX: 508-362-3136

Electronic mail "email"—please put "UPWP" in the subject line and send to:
david.nolan@capecodcommission.org

Comments / Questions received on this UPWP:

A Public Comment Summary Grid will be attached that presents a summary of the comments received during the 21-day public comment period. The comments will be presented in their entirety to the Cape Cod MPO during their May 23, 2022, meeting where the body considered the comments. Consideration of the comments will be detailed in the meeting minutes for that meeting. The response and any action taken by the MPO will be summarized in this table. Discussion of UPWP activities was also included in the previous MPO and CCJTC meetings.

APPENDIX D: LIST OF STAFF AND ESTIMATED PERCENTAGE OF TIME ALLOCATED TO MASSDOT FUNDED (PL) TASKS IN THE FY 2023 UPWP

Staff Name and Position	Percentage of Time
Steven Tupper, Deputy Director/Transportation Director	70%
Colleen Medeiros, Transportation Program Manager	80%
David Nolan, Senior Transportation Planner	85%
Evan Moorman, Transportation Planner	85%
TBD, Transportation Planner/Engineer	85%
Martha Hevenor, Planner II	8%
Elisabeth Kellam, Community Design Planner	8%
Philip Detjens, Applications Manager	8%
Anne Reynolds, GIS Director	12%
Gary Prahm, GIS Analyst	9%
Emma Curran, GIS Analyst	10%
Michele White, Special Projects Coordinator	8%
Jessica Wielgus, Commission Counsel	12%
Seasonal Traffic Technicians	100%

APPENDIX E: FFY 2023 FUNDING SUMMARY

Commission staff has updated budget allocations based off a review of previous funding lines from past UPWP years and incorporating increased funding.

Appendix E: Federal Fiscal Year 2023 Funding Summary

		FHWA PL funds	MDOT (match)	FTA Sec 5303	Task Total	Percent
Task 1 Mgt & Support of the Planning Process & Certification Activities						
1.1	Unified Planning Work Program	\$22,400	\$5,600		\$28,000	3.0%
1.2	Transportation Improvement Program	\$40,000	\$10,000		\$50,000	5.3%
1.3	CCJTC and MPO Activities	\$36,000	\$9,000		\$45,000	4.8%
1.4	Environmental Justice/Title VI	\$24,000	\$6,000		\$30,000	3.2%
1.5	Public Participation Plan	\$24,000	\$6,000		\$30,000	3.2%
1.6	Regional Transportation Plan	\$56,000	\$14,000		\$70,000	7.5%
Total for Task 1		\$202,400	\$50,600		\$253,000	26.9%
Task 2 Data Collection & Analysis Activities						
2.1	Transportation Data Collection Program	\$48,000	\$12,000		\$60,000	6.4%
2.2	Performance Measures	\$29,600	\$7,400		\$37,000	3.9%
2.3	Transportation Database Management/Modeling	\$29,600	\$7,400		\$37,000	3.9%
2.4	Pavement Management/Stormwater	\$21,600	\$5,400		\$27,000	2.9%
2.5	Healthy Transportation/Complete Streets Support	\$24,000	\$6,000		\$30,000	3.2%
2.6	Geographic Information Systems	\$40,000	\$10,000		\$50,000	5.3%
Total for Task 2		\$192,800	\$48,200		\$241,000	25.7%
Task 3 Short and Long Range Planning						
3.1	Station Avenue (Yarmouth) Corridor Study	\$52,000	\$13,000		\$65,000	6.9%
3.2	Transportation Safety: RSAs/Non Motorist Crash Analysis	\$52,000	\$13,000		\$65,000	6.9%
3.3	Side-Path Crossing Inventory	\$36,000	\$9,000		\$45,000	4.8%
3.4	Climate Action Plan Implementation	\$40,000	\$10,000		\$50,000	5.3%
3.5	Follow up on Previous Studies	\$32,000	\$8,000		\$40,000	4.3%
Total for Task 3		\$212,000	\$53,000		\$265,000	28.2%
Task 4 Technical Assistance Activities						
4.1	Transit Planning		\$12,500	\$50,000	\$62,500	6.7%
4.2	Support for Passenger Rail Service		\$5,000	\$20,000	\$25,000	2.7%
4.3	Transit Data Collection and Analysis		\$10,023	\$40,093	\$50,116	5.3%
4.4	Other Technical Assistance Requests	\$33,830	\$8,458		\$42,288	4.5%
Total for Task 4		\$33,830	\$35,980	\$110,093	\$179,904	19.2%
Totals		\$641,030	\$187,780	\$110,093	\$938,904	100%
Key:						
MDOT = Massachusetts Department of Transportation						
FHWA = Federal Highway Administration *consolidated planning grant - includes FTA Section 5303						
CCC = Cape Cod Commission						
CCRTA = Cape Cod Regional Transit Authority						
PL = Planning funds						
RSAs = Road Safety Audits						
Sec 5303 = Federal Transit Administration Planning Funds						

APPENDIX F: AMENDMENTS/ADJUSTMENTS

Amendments/Adjustments to the plan are presented in this appendix.

Analyses presented in the body of the document and the preceding appendices reflect the projects and funding amounts as May 23, 2022, the endorsement date of the plan.

Cape Cod Unified Planning Work Program for FFY2023

CAPE COD COMMISSION

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Cape Cod Unified Planning Work Program for FFY2023

Schedule: The schedule for this effort allows for completion by October 2023. Milestones include coordination meetings with the Cape Cod Joint Transportation Committee and updates to the Cape Cod Metropolitan Planning Organization.

- Needed data collection (FY 2022) [Summer of 2022 and Fall 2022, as needed]
- Review of methodology/project initiation [Ongoing]
- Public meeting with Stakeholders: Winter 2023
- Problem identification and development of alternatives [Spring 2023]
- Analysis of Alternatives [Summer 2023]
- Draft report/public meeting [Fall 2023]
- Final report [Fall 2023]

Beneficiary Community: Yarmouth

Previous Corridor Studies:

- East Hyannis Route 28 Corridor Study
- Mashpee Rotary Corridor Study
- Route 6 Eastham Corridor Study
- Route 6 Safety Study: Ramp and Shoulder Design
- Route 28 Cotuit Corridor Study
- Route 28 Eastern Mashpee Corridor Study

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$65,000

TASK 3.2 – TRANSPORTATION SAFETY

Objectives: To conduct and assist with Roadway Safety Audits (RSAs) at MassDOT-identified high crash locations across Cape Cod, as well as assisting municipalities with any other small technical assistance needs that arise.

Previous Work:

Commission staff conducts several RSAs every year, while also participating in RSAs hosted by other agencies. A full list of completed RSAs with report links can be found here: <https://www.capecodcommission.org/our-work/transportation-safety/>

The 2019 Barnstable County High Crash Locations Report (top fifty crash location report) provided analysis based on frequency, crash rate, Equivalent Property-Damage Only (EPDO), and EPDO rate using geo-located crash data to the extent available. Creation of the report also included an interactive portal, Cape Cod Crash Dashboard, which will help identify high crash intersections across Cape Cod and help inform future Roadway Safety Audits.

Procedures: With town and state staff members present, RSAs will be conducted. A review of the crash history as well as the existing layout of the study area will be

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conducted. RSA team members will visit the roadway locations and strategize solutions for making the roadway safer for all users. Upcoming RSAs include:

- Report outlining non-motorist crashes (Spring 2023)
- Station Avenue at White's Path – Yarmouth (Spring 2023)
- Route 28 near Bell Tower Mall - Centerville (anticipated completion fall 2022)

Commission staff will also begin to take an in-depth analysis on non-motorized crashes across the region. Staff will focus on crashes that involved a pedestrian or bicyclist and analyze roadway locations, conditions, and severity of these incidents. Staff will compile collected data into a report and share with the JTC and MPO upon completion. The analysis will be consistent with the 2018 MassDOT Strategic Highway Safety Plan.

Products:

- Recommendations will be published in a written report to be made available online. Other study materials will be produced and made available via internet including maps and charts, handouts, and crash diagrams.
- Reports and memoranda published to include analyses and recommendations for improvements at other safety problem locations as appropriate.
- Commission staff will also update the Cape Cod Crash Dashboard with the most recent available crash data and rank the top 50 crash locations on Cape Cod accordingly.
- Presentation and report summarizing the analysis of the non-motorized crashes across Cape Cod

Schedule: Anticipated RSA Schedule-

- Route 28 near Bell Tower Mall – Centerville [Fall/Winter 2022]
- Station Avenue at White's Path – Yarmouth [Spring 2023]
- Presentation of non-motorized crash analysis [Spring 2023]

Beneficiary Communities: All communities

<u>Funding source</u>	<u>Amount</u>
FHWA/MassDOT	\$65,000

A portion of the funding allocated to this task may be used for consulting services.

*Cape Cod Unified Planning Work Program for FFY2023***TASK 3.3 – SIDE-PATH CROSSING INVENTORY**

Background: To identify special safety and operational needs by completing an inventory of all side-path crossings across Cape Cod. In 2021 CCC staff completed a rail trail crossing inventory, and given the success of that project, staff will now inventory side-path crossings and complete a report and mapping tool to display the data and offer recommendations.

A side-path is best defined as a shared use path that is located adjacent and parallel to a roadway. A side-path offers a safe, off-road, bicycling experience away from the main travel lane. Many side-paths on Cape Cod are signed at crossings, while many more are not. Staff will research best practices of crossing treatments for side-paths.

Objectives: The goal of the inventory is to provide recommendations that will improve safety for all users as well as identifying locations for potential funding opportunities.

Procedures:

- Commission staff will begin data collection activities in the summer of 2022 and continue into the fall of 2022 as needed.
- Staff will take the collected data and begin to complete an analysis of existing conditions and prepare a report and online mapping tool to show data and offer recommendation.

Products: A report and online mapping tool

Beneficiary Communities: All

Schedule:

- Data collection [Summer/Fall 2022]
- Report/mapping tool [Winter/Spring 2023]

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$45,000

TASK 3.4 – CLIMATE ACTION PLAN IMPLEMENTATION

Background: Completed in 2020, the Cape Cod Commission performed an Electric Vehicle (EV) Charging Infrastructure inventory and siting analysis. The project involved a data collection portion, where staff visited and documented existing EV charging stations and created a mapping tool to display all the existing infrastructure. CCC staff then performed a siting analysis, looking at several components to better understand where future EV infrastructure would be best suited.

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Given the positive feedback and the increase in infrastructure since the completion of that analysis, CCC staff is going to produce an update to the siting analysis and collect data at new EV charging locations. Work with municipalities and other partner agencies to identify and seek funding opportunities for charger installation.

Additionally, building on the municipal Low Lying Roads projects, staff will compile a regional low Lying roads data set to inform the RTP and other regional planning efforts. Furthermore, Commission staff will seek funding opportunities to address priority locations identified through the low-lying road projects.

Products:

- Data and Information
 - Updating data for the regional EV charging station siting tool
 - Collecting and analyzing data from new EV charging stations
- Technical Support and Engagement
 - Support municipalities in the implementation or expansion of infrastructure to support EV charging
-
- Low Lying Roads data set
 - To assist in seeking funding opportunities to address priority locations.

Schedule:

- Low Lying Roads data set [Spring 2023]
- EV Charging Data viewer updates [Summer 2023]
- Ongoing technical support and engagement

Beneficiary Communities: All

<u>Funding Source</u>	<u>Amount</u>
FHWA/MassDOT	\$50,000

A portion of the funding allocated to this task may be used for consulting services.