



CAPE COD
COMMISSION

Cape Cod Transportation Improvement Program Federal Fiscal Year 2017 – 2021

Anticipated Endorsement: August 1, 2016



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.

Title VI Notice of Nondiscrimination

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 Transportation Improvement Plan (TIP) at CCJTC, MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration (FTA).

Cape Cod Transportation Improvement Program (TIP) prepared by the

Cape Cod Metropolitan Planning Organization (MPO) Members:

- Stephanie Pollack, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)
- Thomas J. Tinlin, Administrator, MassDOT Highway Division
- Tom Guerino, Chair, Cape Cod Regional Transit Authority
- Richard Roy, Cape Cod Commission
- Jessica Rapp Grassetti, President, Barnstable Town Council
- Leo Cakounes, Barnstable County Commissioners
- R. Patrick Ellis, Mashpee Selectman, for Bourne, Falmouth, Mashpee, and Sandwich
- Sheryl A. McMahon, Dennis Selectman, for Dennis and Yarmouth
- Sims McGrath, Orleans Selectman, for Brewster, Chatham, Harwich, and Orleans
- Robert Weinstein, Truro Selectman, for Eastham, Provincetown, Truro, and Wellfleet
- Cedric Cromwell, Chairman, Mashpee Wampanoag Tribal Council

MPO Ex-Officio Members:

- Roger Parsons, Chairman, Cape Cod Joint Transportation Committee
- George Price, National Park Service/Cape Cod National Seashore
- Lawrence T. Davis, US Army Corps of Engineers/Cape Cod Canal
- Wayne Lamson, Woods Hole, Martha's Vineyard, and Nantucket Steamship Authority
- Pamela S. Stephenson, Federal Highway Administration
- Mary Beth Mello, Federal Transit Administration

and the

Cape Cod Joint Transportation Committee

- Roger Parsons, Chairman, Barnstable
- Catherine Laurent, Vice-Chairman, Mashpee

Cape Cod Commission TIP Staff Contact:

- Glenn Cannon, P.E., Technical Services Director, Cape Cod Commission

Cape Cod Metropolitan Planning Organization (MPO)

Cape Cod Transportation Improvement Program (TIP)

The signatures to follow certify that the Cape Cod Metropolitan Planning Organization (MPO), at their meeting on August 1, 2016, hereby approves the following action in accordance with the Comprehensive, Cooperative and Continuing 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 Transportation Improvement Program for Federal Fiscal Year 2017 through 2021.

Signatures to be added upon endorsement.

Executive Summary

The Cape Cod Metropolitan Planning Organization's (MPO) transportation capital plan, the Transportation Improvement Program (TIP), lists major transportation projects planned in the next five years.

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 to establish a preference for which projects are funded through the TIP. Members of the public are welcome and encouraged to attend these meetings and voice opinions.

Contents of the Plan

The TIP includes a discussion of the transportation planning process, a discussion of the TIP development process, a table of available TIP funding, descriptions of TIP projects selected for funding, and a series of tables detailing TIP project funding allocations. The TIP also includes appendices that detail project evaluation including equity analyses, air quality conformity, projects in need of funding, the status of previous TIP projects, and public comments. Project selected for funding are presented on the following page.

How to Get Involved

The Cape Cod MPO will consider release the draft TIP for the public review/ comment period at their 1:00 PM meeting on June 27, 2016, officially beginning the 30-day public comment period. The MPO is expected to consider endorsement of the TIP at their 1:00 PM meeting on August 1, 2016. All MPO meetings are held at the Cape Cod Commission Office at 3325 Main Street (Route 6A) Barnstable, MA 02630. Transit service is available on the Cape Cod Regional Transit Authority's Barnstable Villager Route (the Barnstable Village-Courthouse stop).

Comments on this plan may be sent by July 27, 2016 via mail, hand delivered, by facsimile, or via e-mail, as follows:

Mailed or dropped off:

Cape Cod Commission Transportation Program
Glenn Cannon, Technical Services Director
3225 Main Street (Route 6A)
PO Box 226
Barnstable MA 02630-0226

Sent by facsimile to the attention of Glenn Cannon, Technical Services Director, CCC:
FAX: 508-362-3136

Electronic mail "email"—please put "TIP" in the subject line and send to:

gcannon@capecodcommission.org

2017-2021 Projects

The following projects are included in the draft Cape Cod Transportation Improvement Program for Federal Fiscal Year 2017-2021:

- Dennis, Route 28 Corridor & Streetscape Improvements (2017)
- Bourne, Route 6 & 28 Bypass Road Resurfacing and Related Work (2017)
- Harwich, Improvements at Route 124 Park and Ride (2017)
- Cape Cod, Bicycle Rack Program (2017-2021)
- Harwich-Brewster-Orleans Route 6 Resurfacing (2017)
- Bridge Inspections (2017)
- Hyannis Loop Demonstration Project (2017-2018)
- Falmouth, Route 28A at Route 151 (2018)
- Barnstable, Route 28 at Osterville-West Barnstable Road (2018)
- Chatham, Route 28 - George Ryder Road to Barn Hill Road (2018)
- Yarmouth-Barnstable, Cape Cod Rail Trail Extension (2018)
- Wellfleet, Route 6 at Main Street (2019)
- Barnstable, Route 28 at Yarmouth Road (2019)
- Bourne-Falmouth, Route 28 Guide and Traffic Sign Replacements (2019)
- Mashpee, Route 151 (2020-2021)
- Bourne, Belmont Circle Multi-modal Improvements (2020)
- Orleans, Route 28 Stormwater Improvements (2020)
- Chatham, Route 28 at Main Street, Depot Road, Queen Anne Road and Crowell Road (2021)
- Harwich, Bridge Replacement – Azalea Drive over Herring River (2021)
- Sandwich, Shared-Use Path on Service Road from Route 130 to Chase Road (2021)
- Various transit projects to allow the Cape Cod Regional Transit Authority (CCRTA) to operate their year-round and seasonal fixed-route services, operate their demand response services, and maintain the vehicles and other infrastructure. (2017-2021)

In total, the FFY2017-21 TIP includes over \$133 million in funded projects.

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Chapter 1: Transportation Planning Process

Decisions about how to spend transportation funds in a metropolitan area are guided by information and ideas from a broad group of people, including elected officials, municipal planners and engineers, transportation advocates, other advocates, and other interested persons. Metropolitan Planning Organizations (MPOs) are the bodies responsible for providing a forum for this decision-making process.

Each metropolitan area in the United States with a population of 50,000 or more has an MPO, which decides how to spend federal transportation funds for capital projects and planning studies. In order to be eligible for federal funds, metropolitan areas are required to maintain a continuing, cooperative, and comprehensive (3C) transportation planning process that results in plans and programs consistent with the planning objectives of the metropolitan area. The 3C transportation-planning process on Cape Cod is the responsibility of the Cape Cod MPO.

Cape Cod Metropolitan Planning Organization (MPO)

The Cape Cod Metropolitan Planning Organization (MPO) is the regional governing body established by federal law to oversee regional transportation planning and recommend the distribution of transportation funds on Cape Cod (Barnstable County). The MPO is made up of eleven voting members as presented in Table 1. Town representation on the body is depicted in Figure 1.

Table 1. Cape Cod MPO Membership

AGENCY	MPO SIGNATORY
Massachusetts Department of Transportation (MassDOT)	Secretary of Transportation
MassDOT Highway Division	Administrator
Cape Cod Regional Transit Authority (CCRTA)	Chairman
Cape Cod Commission (CCC)	Chairman
Barnstable County Commissioners	Commissioner
Mashpee Wampanoag Tribe	Tribal Chairman
Town of Barnstable	Town Council President
Sub-region A (Bourne, Falmouth, Mashpee, Sandwich)	Selectman
Sub-region B (Dennis, Yarmouth)	Selectman
Sub-region C (Brewster, Chatham, Harwich, Orleans)	Selectman
Sub-region D (Eastham, Provincetown, Truro, Wellfleet)	Selectman

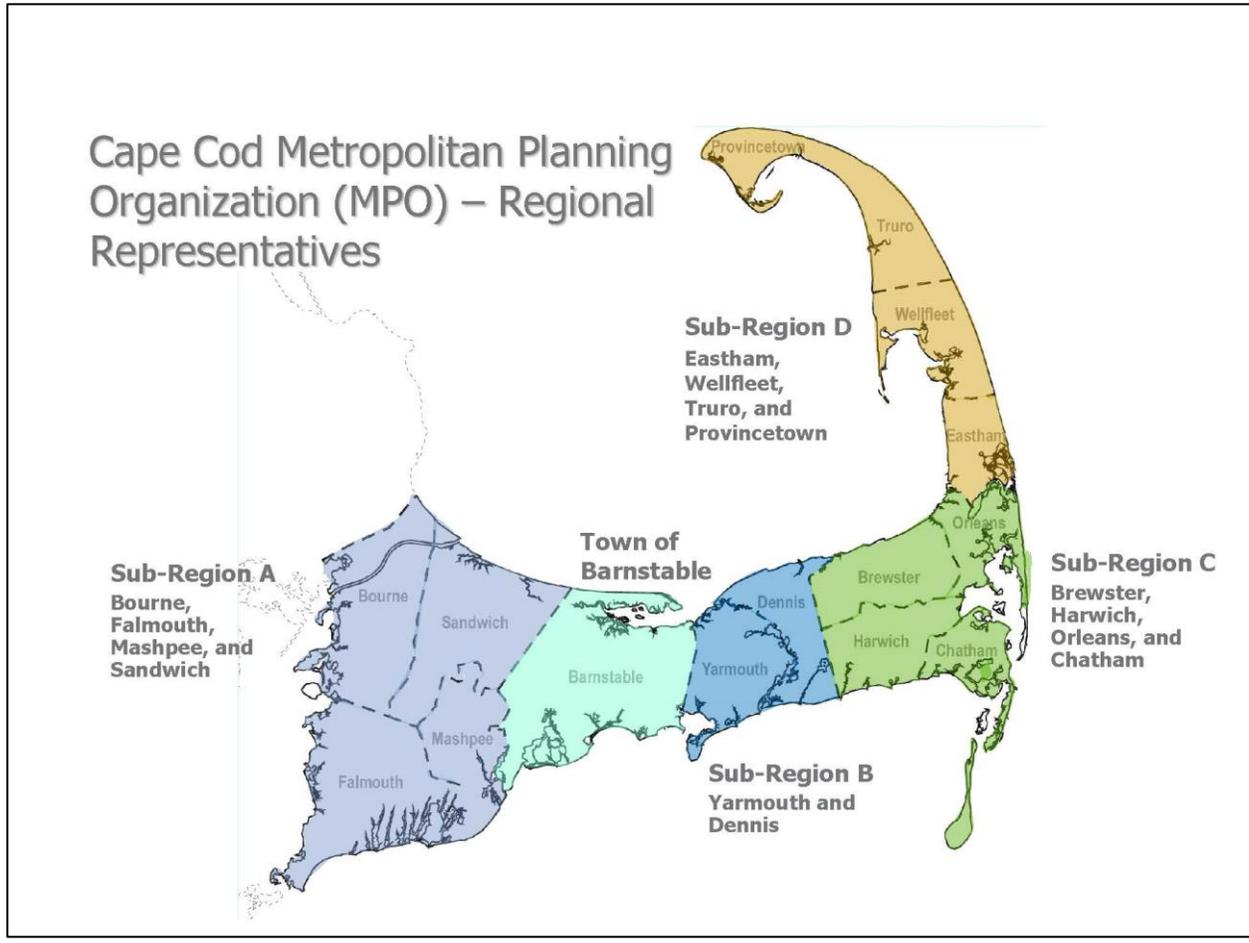


Figure 1. Map of Cape Cod Metropolitan Planning Organization Sub-regions

The Federal Highway Administration, Federal Transit Administration, Army Corps of Engineers, Cape Cod National Seashore, the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority, and the Chair of the Cape Cod Joint Transportation Committee serve as non-voting, Ex-Officio members of the MPO.

Cape Cod Joint Transportation Committee (CCJTC)

The Cape Cod Joint Transportation Committee (CCJTC) is the advisory group to the Cape Cod MPO. The CCJTC was formed more than 40 years ago with the first meeting being held in 1973. Membership on the CCJTC consists of one appointee from each town, selected by the town's highest elected officials, as well as a Bicycle Representative designated by the CCJTC. Town appointees are generally department of public work directors, town engineers, or town planners; individuals familiar with their town's transportation needs. Individuals representing MassDOT, the CCRTA, and the CCC also generally attend and participate in CCJTC meetings.

Federal Certification Documents

The MPO is required to endorse other federal certification documents including the Regional Transportation Plan (RTP), the Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), and the Public Participation Plan (PPP).

The RTP establishes a regional vision for the transportation system; the UPWP studies investigate deficiencies in that system and identify potential solutions, and the TIP details specific transportation projects that are implemented to improve the transportation system. The PPP provides a framework to ensure public involvement and cooperative decision making throughout the transportation planning process. A summary of the primary function, time horizon, and update timeline is presented in Table 2. The table also includes links to the Cape Cod MPO webpages that contain more detailed information on each of the documents.

Table 2. Federal Certification Documents

DOCUMENT	PRIMARY FUNCTION	TIME HORIZON	UPDATE TIMELINE
Regional Transportation Plan (RTP) ¹	Establishes long-range vision and goals, identifies major projects, studies, and programs	20+ years	Every 4 years
Transportation Improvement Program (TIP) ²	Identifies specific transportation investments (projects)	4 years	Annually
Unified Planning Work Program (UPWP) ³	Details planning studies and tasks	1 year	Annually
Public Participation Plan (PPP) ⁴	Establishes plan for public participation for transportation decision-making	Ongoing	Every 5 years or more frequently as needed

¹ The Regional Transportation Plan (RTP) is available at www.capecodcommission.org/rtp
² The Transportation Improvement Program (TIP) is available at www.capecodcommission.org/tip
³ The Unified Planning Work Program (UPWP) is available at www.capecodcommission.org/upwp
⁴ The Public Participation Plan (PPP) is available at www.capecodcommission.org/ppp

Transportation Legislation

Federal legislation that contains requirements for transportation plans, programs and projects includes the current legislation: Fixing America's Surface Transportation (FAST) Act and the outgoing legislation: Moving Ahead for Progress in the 21st Century (MAP-21) as well as the Clean Air Act Amendments of 1990 (CAAA).

Fixing America's Surface Transportation (FAST) Act

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94) into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

Building on outgoing legislation (MAP-21), the FAST Act maintains a focus on safety, keeps intact the established structure of the various highway-related programs, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects. As required under this legislation, the planning process used in the development of this plan includes consideration of projects that:

- (A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- (B) increase the safety of the transportation system for motorized and nonmotorized users;
- (C) increase the security of the transportation system for motorized and nonmotorized users;
- (D) increase the accessibility and mobility of people and for freight;
- (E) 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;
- (F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- (G) promote efficient system management and operation;
- (H) emphasize the preservation of the existing transportation system;
- (I) improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- (J) enhance travel and tourism.

Title VI/Nondiscrimination

The Cape Cod MPO follows federal and state non-discrimination laws and seeks to ensure that all interested parties in Barnstable County have access to the MPO's activities and services and that public involvement in the MPO's decision making comes from a diverse socioeconomic group that is representative of the county's population. The MPO has developed a nondiscrimination program, in accordance with federal and state requirements, to encourage broad public participation, representation, and equity in the region's transportation planning.

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin. Organizations that receive Federal funds are obligated to assure nondiscrimination in their programs and activities and are required to have a comprehensive Title VI enforcement program to prevent and eliminate discrimination in their federally funded programs. Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) set forth Title VI compliance requirements for "primary" funding recipients such as MassDOT and sub-recipients such as the MPOs to follow. Effective transportation decision making depends upon understanding and properly addressing the needs of different socioeconomic groups. The MPO's Title VI program includes identifying the demographic distribution of minority and limited English proficiency populations within the region and implementing a comprehensive strategy to ensure that the MPO conducts effective outreach to encourage their involvement in and access to the transportation planning and decision-making process.

The Massachusetts Department of Transportation (MassDOT) is responsible for ensuring that the state's MPOs comply with federal program requirements. Following MassDOT's 2013 Title VI program update, the Cape Cod MPO developed and adopted a Title VI Program in 2014. The Title VI plan provides information about beneficiaries' rights, how to file a complaint, regional demographic data, maps, a public participation plan, a language access plan, and analyses of transportation spending in the region, project locations and potential impacts from projects to ensure equity in the planning and implementation process for the region.

Although Title VI is the focal point of non-discrimination law in the United States, FHWA incorporates a broader spectrum of statutes, executive orders, and regulations into its requirements for states and MPOs. For example, Section 324 of the Federal-Aid Highway Act of 1973 prohibits discrimination based on sex; Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of disability status, as does the Americans with Disabilities Act of 1990; and the Age Discrimination Act of 1975 prohibits age discrimination. In addition, the Civil Rights Restoration Act of 1987 (FHWA Notice 4720.6) clarified the original intent of Congress with respect to Title VI by restoring the broad, institution-wide scope and coverage of the nondiscrimination

statutes to include all programs and activities of federal-aid recipients and enforcing the application of the laws that include nondiscrimination on the basis of race, color, national origin, age, gender, or disability.

Other Federal and State Legislative Requirements and Policies

In addition to federal transportation legislation, the transportation planning process must comply with the Americans with Disabilities Act (ADA); the Clean Air Act; Title VI of the Civil Rights Act of 1964; Executive Order 12898; Executive Order 13330; the Global Warming Solutions Act; and MassDOT and GreenDOT Policies.

Chapter 2: 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, 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 with 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.

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 450.324. 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 June or July with the STIP being submitted for federal approvals prior to the beginning of the Federal Fiscal Year on October 1.

Adjustment and Amendment Procedures

The Cape Cod Joint Transportation Committee recommends inclusion in the statewide program of the projects as programmed in this TIP for Cape Cod, with regional consensus and endorsement by the Cape Cod MPO. Projects that are in the first years of the TIP, which have designs completed or well underway, have public support in addition to the regional support.

Administrative Adjustment Process

In the event a project in the annual element, or current Federal Fiscal Year, is not proceeding in the programmed year, the substitution of another project from the outer years of the TIP for implementation in the current year is considered by the Cape Cod MPO to be an administrative adjustment provided that the following conditions are true:

- Financial constraint of the TIP is maintained.
- The project must be an exempt project, conformity determination not required.
- A letter requesting the administrative adjustment is forwarded to the Director of the MassDOT Office of Transportation Planning to reflect the adjustment in the STIP.
- Administrative Adjustments to the TIP shall be included within the next MPO agenda. Administrative Adjustments do not require public comment periods.

Other changes that are allowed as administrative modifications include project name, scope, and/or cost estimate changes, as long as those changes are considered to be minor in nature. For example, a project cost increase within 10% of the existing amount programmed already, may be considered an administrative adjustment.

Amendment Process

In order for implementation of projects to proceed in the current year, a previously unlisted project may be amended into the TIP. An action to add a new project is considered by the Cape Cod MPO to be an amendment if the following conditions are true:

- Consensus in the region for this project to be included and move forward.
- Financial constraint of the TIP is maintained.
- A Cape Cod MPO meeting to endorse the amendment(s).
- Conformity determination is required unless the amendment(s) consist(s) entirely of exempt projects.
- An outer year TIP project or a Non Federal Aid project is not considered a new project and may be an Administrative Adjustment—see above Administrative Adjustment Process.

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).

The development of the TIP occurs in public meeting of the CCJTC and the Cape Cod MPO. Presentations on potential new projects typically occur in the fall. Discussions of

the scoring of potential projects and development of a potential program of projects occurs in the winter and spring. Meetings related to the development of the TIP for discussion and/or endorsement in Table 3.

Table 3. Transportation Improvement Program Development Meetings

DATE	MEETING TYPE	LOCATION
March 11, 2016	CCJTC	CCC Office
March 21, 2016	Cape Cod MPO	CCC Office
April 8, 2016	CCJTC	CCC Office
April 25, 2016	Cape Cod MPO	CCC Office
May 13, 2016	CCJTC	CCC Office
May 23, 2016	Cape Cod MPO	CCC Office
June 10, 2016	CCJTC	CCC Office
June 27, 2016	Cape Cod MPO	CCC Office

In addition to discussion at CCJTC and Cape MPO public meetings, CCC staff makes efforts to reach out directly to members of the public interested in development of the TIP. Prior to the release of the draft TIP, public outreach events were held across the region including collecting comments at Bay State Bike Week events in the towns of Bourne, Barnstable, Dennis, and Orleans. Staff also made a presentation and collected comments at a Sunday service at the largest Portuguese church on Cape Cod. Additional outreach events are planned during the 30-day public comment period.

CCC staff maintains an electronic mailing list of persons interested in transportation issues in the region. Notice of the public meetings where discussion of draft TIP documents is to occur is emailed at least seven days in advance. Upon approval by the MPO, a public draft of the TIP is made available for public comment for a period of at least 30 days. Public comments may be made in person or via email, telephone, fax, or regular mail.

Chapter 3: TIP Funding

This TIP was developed during a transition between two Federal transportation-funding bills. Most funding categories in this TIP are through federal sources: Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) as provided by federal legislation. The current legislation is Fixing America’s Surface Transportation (FAST) Act. The outgoing federal transportation legislation is the Moving Ahead for Progress in the 21st Century (MAP-21). Table 4 and Table 5 provide brief descriptions of the funding programs used for transportation improvement projects on Cape Cod.

Table 4. Federal Highway Funding Administration Programs

PROGRAM	ELIGIBLE USES
Congestion Mitigation and Air Quality Improvement (CMAQ)	A wide range of projects in air quality nonattainment and maintenance areas for ozone, carbon monoxide, and small particulate matter, which reduce transportation-related emissions.
Highway Safety Improvement Program (HSIP)	Implementation of infrastructure-related highway safety improvements
National Highway Performance Program (NHPP)	Improvements to interstate routes, major urban and rural arterials, connectors to major intermodal facilities, and the national defense network. Also includes replacing or rehabilitating any public bridge, and resurfacing, restoring, and rehabilitating routes on the Interstate Highway System.
Surface Transportation Block Grant (STBG) <i>[Surface Transportation Program (STP) under MAP-21]</i>	A broad range of surface transportation capital needs, including roads; transit, sea, and airport access; and vanpool, bicycle, and pedestrian facilities.
Transportation Alternatives (TA) <i>[Transportation Alternatives Program (TAP) under MAP-21]</i>	Construction of infrastructure-related projects (for example, sidewalk, crossing, and on-road bicycle facility improvements).
Bridge Replacement and Rehabilitation Program (BR)	Replacement or repair of bridges on or off the federal aid system.
Non Federal Aid (NFA)	These projects are not funded with federal dollars. Typically, projects in this category are funded through state bonding, and are generally state maintenance projects.

Table 5. Federal Transit Funding Administration Programs

PROGRAM	ELIGIBLE USES
Bus and Bus Facilities (FTA 5309)	This category is discretionary funds for capital expenditures such as buses and terminal facilities; projects need federally earmarked 5309 funds to proceed.
Urbanized Area Formula Grant Program (FTA 5307)	These funds are primarily for capital expenditures. In urbanized areas (UZA) with a population over 200,000, the use for operating assistance is limited. This funding is distributed to UZAs over 200,000 population via formula.
Elderly Persons and Persons with Disabilities Formula Program (FTA 5310)	This program funds public transit projects in rural areas.
Rural Area Formula Program (FTA 5311)	This program funds public transit projects in rural areas. MassDOT and FTA grant 5311 funds on a discretionary basis. Funds are for both capital and operating expenses. Federal share currently funds approximately 13% of total cost.
Mobility Assistance Program (MAP)	This MassDOT program funds capital improvements for transportation services for people who are elderly and/or have disabilities.
State Contract Assistance (SCA)	These funds are provided through the Commonwealth Transportation Fund (CTF) and the Massachusetts Transportation Trust Fund (MTTF) and are used as matching funds to make federal programs.

For federal fiscal years 2017-2021 the anticipated available funding from the Federal Highway Administration with the state match is presented in Table 8.

Table 6. Summary of Available Federal Highway Administration Funding with State Match

YEAR	STP	HSIP	CMAQ	TAP	TOTAL
2017	\$7,433,200	\$458,514	\$1,432,857	\$193,036	\$9,517,607
2018	\$8,069,313	\$458,514	\$1,146,285	\$210,307	\$9,884,419
2019	\$8,086,584	\$458,514	\$1,146,285	\$193,036	\$9,884,419
2020	\$8,271,336	\$458,514	\$1,146,285	\$242,367	\$10,118,502
2021	\$8,193,978	\$458,514	\$1,146,285	\$319,725	\$10,118,502
2017-2021 Total	\$40,054,411	\$2,292,570	\$6,017,997	\$1,158,471	\$49,523,449

For federal fiscal years 2017-2021 the anticipated available funding from the Federal Transit Administration with the state match is presented in Table 8.

Table 7. Summary of Available Federal Transit Administration Funding with State Match

YEAR	Federal (5339/5307)	State Match (RTACAP/SCA)	TOTAL
2017	\$9,101,489	\$2,725,372	\$11,826,861
2018	\$8,552,254	\$2,588,065	\$11,140,319
2019	\$8,679,314	\$2,619,827	\$11,299,141
2020	\$9,203,611	\$2,750,902	\$11,954,513
2021	\$8,891,477	\$3,822,869	\$12,714,346
2017-2021 Total	\$44,428,145	\$14,507,035	\$58,935,180

Chapter 4: TIP Project Map and Descriptions

Map of Funded Highway Projects

Figure 2 shows the location and extent of highway projects funded in this Transportation Improvement Program (TIP). An interactive map of these projects is available on the [Cape Cod TIP website](http://www.capecodcommission.org/tip) at www.capecodcommission.org/tip.

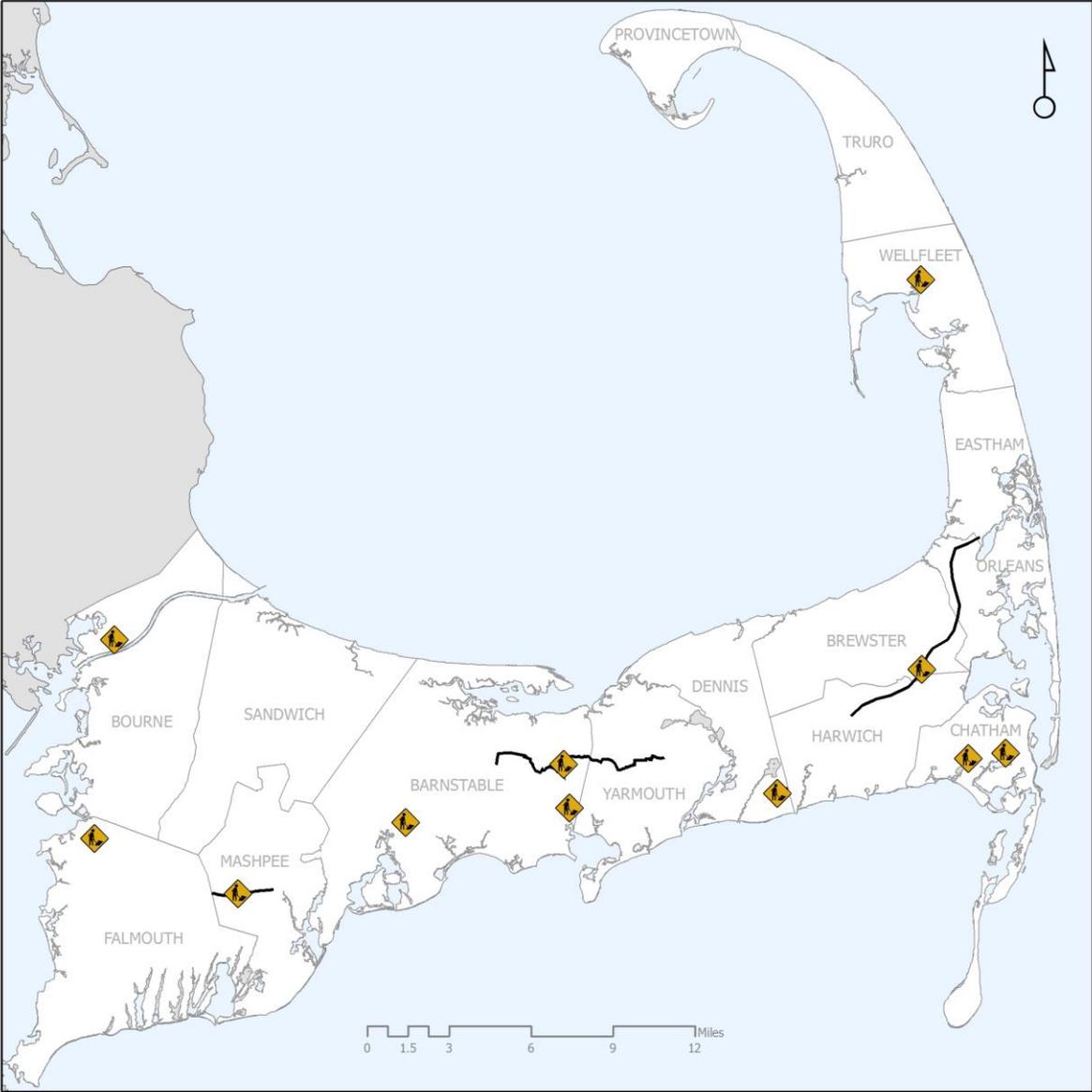


Figure 2. Map of Funded Highway Projects

Description of Funded Highway Projects

The following descriptions for highway projects were prepared by MassDOT and are subject to change as the projects are further developed.

Dennis, Rte 28 Corridor & Streetscape Improvements (#606707)

This project is intended to improve multi-modal accommodation through the reconstruction of sidewalks to ADA specification, providing wider, bicycle accommodating shoulders and streetscape elements including new plantings and street lighting.

Bourne, Route 6 & 28 Bypass Road Resurfacing and Related Work (#608544)

This project is in preliminary design.

Harwich, Improvements at Route 124 Park and Ride (#608102)

This project is in preliminary design. Improvements will include a new bus shelter.

Cape Cod, Bicycle Rack Program (#245317)

The primary objective of the program is to provide local governments with an economical and convenient source of bicycle parking equipment. A further objective is to provide a selection of racks with variety in capacity, appearance, and design. The program consists of providing full reimbursement for the purchase price of bicycle racks for all fifteen communities in the Cape COD MPO region (Barnstable County).

Falmouth, Rte 28A at Rte 151 (#607444)

This project is intended to address the following needs: upgrading of traffic signals; geometric work in the form of minor widening; providing multi-modal accommodation.

Barnstable, Rte 28 at Osterville-West Barnstable Rd (#607435)

This project proposes to address vehicular safety by upgrading traffic signals to include exclusive left turn lanes at the Route 28 approaches in addition to emergency vehicle pre-emption. There is also a need to improve bicycle and pedestrian accommodation at the intersection in addition to updating pavement markings and signage.

Chatham, Rte 28 - George Ryder Rd to Barn Hill Rd (#606596)

The purpose of this project is to construct safety and multimodal improvements along a 1700 foot linear segment of West Main Street (Route 28) between George Ryder Road and Barn Hill Road. The intent of the project is to provide improved safety and accessibility for bicyclists, pedestrians and motorists traveling through this corridor.

Yarmouth-Barnstable, Cape Cod Rail Trail Extension (#607398)

This project is intended to provide an extension of the Cape Cod Rail Trail multi-use path connecting the communities of Barnstable and Yarmouth.

Har-Brew-Orl, Route 6 Resurfacing (#608201)

Work on this project includes roadway resurfacing (mill and overlay) of the existing roadway from the east of the Route 124 interchange in Harwich to the west of the Orleans Rotary.

Wellfleet, Rte 6 at Main St (#607397)

This project proposes to address traffic safety, multi-modal accommodation and the need for updated pavement markings. Upgrading of the traffic signals to include ped activation is proposed, in addition to the construction of sidewalks and extensions at the intersection. Pavement markings are also proposed to be updated at the intersection crossings.

Barnstable, Rte 28 at Yarmouth Rd (#606272)

This project involves improving safety and congestion for all users at the intersection of Iyanough Road (Route 28) and Yarmouth Road. Additional approach turn lanes are required at the intersection to alleviate congestion and improve corridor/intersection level of service. Traffic signal upgrades are also planned, in addition to new pavement markings and signage. Sidewalks will be reconstructed to ADA standards where necessary.

Mashpee, Rte 151 (#607319)

Work on this project will consist of corridor improvements on Route 151. Work will include intersection improvements, channelization, and potential exclusive left turn lanes at key driveways. In addition, traffic signals upgrading is required at key intersections such as Frank Ellis Drive/Job Fishing Rd. and Old Barnstable Rd. The project will address the lack of continuous 'complete streets' (bicycle and pedestrian accommodation) along the corridor, particularly at 2 key intersections: Frank Ellis Drive/Job Fishing Rd. and Old Barnstable Rd. Also, there is a need to update the crosswalks and pedestrian actuation equipment at the intersections to ADA compliance. Finally, signage, pavement markings and drainage need upgrading.

Bourne, Belmont Circle Multi-modal Improvements (# 606900)

This project is intended to address safety and congestion issues at Belmont Circle. Proposed improvements being considered include: reconstruction, minor widening, reconfiguration of travel/turn lanes, signalization of nodes, and improved signage and pavement markings.

Chatham, Rte 28 at Main St, Depot Rd, Queen Anne Rd and Crowell Rd (#607405)

This project is intended to address the need for geometric, safety and multimodal improvements at the intersection. Proposed improvements include realignment of approach travel lanes and traffic islands at the intersection. The existing traffic signals

also need upgrading to include pedestrian activation. There is also a lack of sidewalks on the South side of the intersection in addition to bike accommodating shoulders. Existing signage and pavement markings need upgrading. New sidewalk extensions and provision of upgraded pavement markings including ADA compliant crosswalks and ramps will serve to improve multimodal accommodation.

Sandwich, Shared Use Path on Service Rd (Rte 130 to Chase Rd)

In 2013, National Grid (NGRID, an international electricity and gas company, approached the Town of Sandwich with a request to construct and maintain a 20” gas main in the roadside area between the Service Road pavement and the Mid-Cape Highway right-of-way. The Town of Sandwich, as part of the local permit process, mandated that a variety of public betterments be included in the project. One such betterment requires National Grid to include tree removal and rough grading along the proposed gas line alignment that would serve as a base for constructing this first phase of a multi-phase shared-use path project from Route 130 to Chase Road.

Bridge Inspections (# BRI17)

Statewide bridge inspections.

Bourne-Falmouth, Rte 28 Guide and Traffic Sign Replacements (# 608571)

This project is in preliminary design.

Orleans, Rte 28 Stormwater Improvements (# 608598)

This project is in preliminary design.

Harwich, Bridge Replacement - Azalea Dr over Herring River (#608617)

This project is in preliminary design.

Description of Funded Transit Projects

Transit projects funded in the TIP allow the Cape Cod Regional Transit Authority (CCRTA) to operate and maintain the fleet of vehicle and other infrastructure needed to meet the transportation needs of the Cape Cod region. The agency offers many types of services that cater to many different customer types including provides year-round and seasonal fixed-route services and a variety of demand response services. There is emphasis on providing transportation to the transit dependent demographics on Cape Cod, the elderly and individuals with disabilities.

Year-round fixed route service is offered on major roads. Stops are positioned to provide mobility and convenience for customers. Passengers may also flag down the bus between scheduled stops along the route. The FLEX route is a hybrid, which allows passengers to request a pick-up or drop off location up to $\frac{3}{4}$ of a mile from the designated route. The routes with the highest ridership are the H2O and Sealine, which travel on Route 28. Some of the fixed routes show ridership that changes seasonally, such as the FLEX route, but others show more steady year round use, including the Sandwich Line and Barnstable Villager. The newest regular services, the Sandwich Line and the Bourne Run have been meeting the fixed-route needs of previously unserved areas. Still running as a demonstration route, the Hyannis Loop is providing improved access to employment and services in Hyannis. Figure 3 shows the agencies year-round, fixed-route services.

Seasonal fixed-route services are provided in the downtown portions of Falmouth, Hyannis and Provincetown. These services have high ridership and measure well in performance during the summer months. The Provincetown shuttle has the highest ridership in the months of July and August of all the services offered. The CapeFLYER, a train from Boston targeted for vacationers traveling to Cape Cod, and the Outer Cape Bike shuttle, a vehicle with a trailer to carry bicycles, are provided in partnership with other agencies and are not included in this evaluation.

Demand response services make up a large portion of total ridership including; Dial-A-Ride Transportation (DART), Americans with Disabilities Act (ADA) paratransit services and the Boston Hospital Transportation.

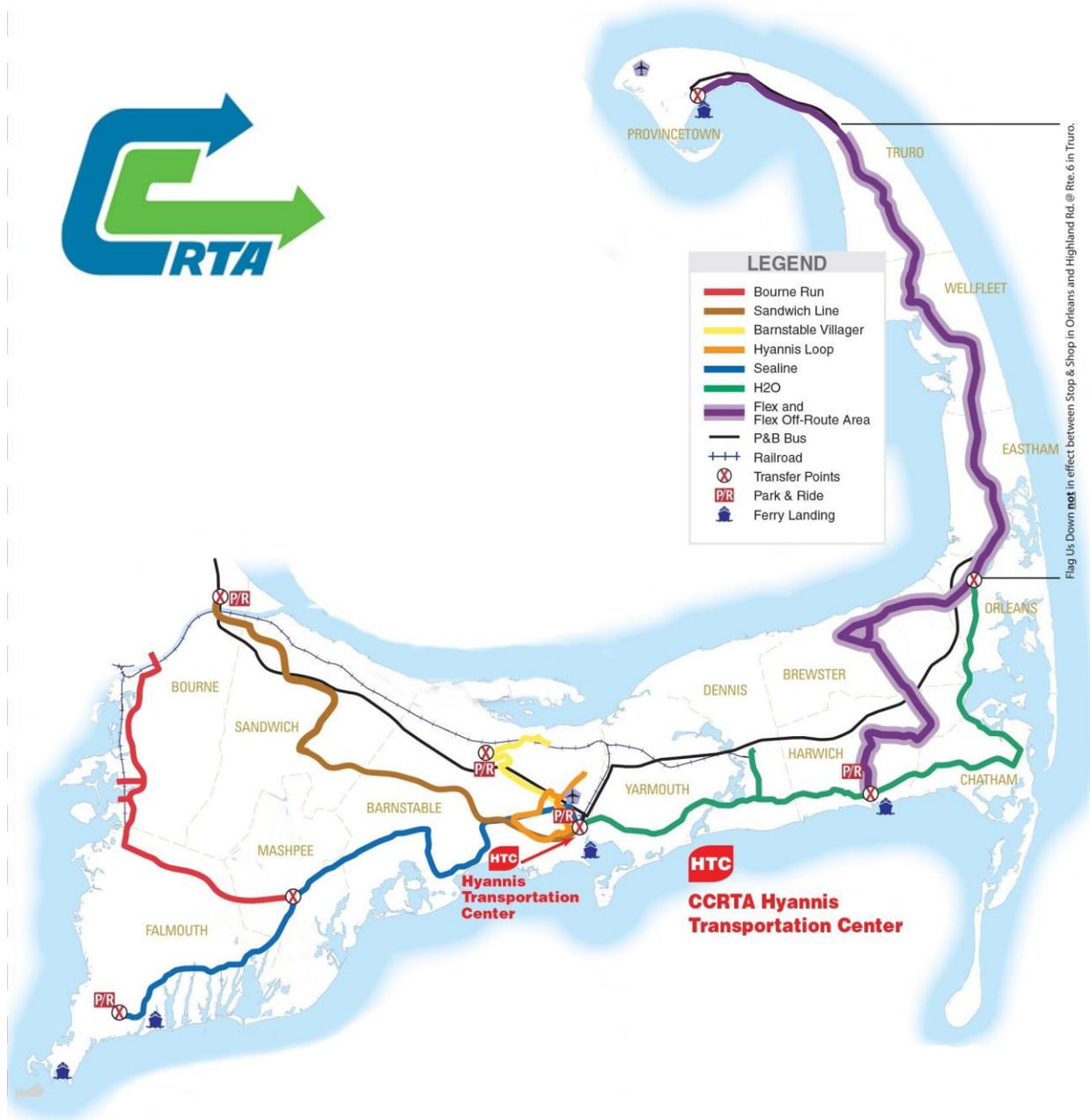


Figure 3. Map of Cape Cod Regional Transit Authority Year-round, Fixed-route Services

Chapter 5: TIP Project Listing/Financial Plan

The following pages include the projects for the Cape Cod region that are in this program for Federal Aid or Non Federal Aid funding.

While it is recognized that this TIP is a planning program of projects and implementation must follow from the responsible implementing agency or agencies, the Cape Cod region expects cooperation, communication and an expeditious review process by agencies with the responsibility of overseeing steps toward implementation in order to ensure the maximum compliance with the programmed plan of projects. This effort by overseeing agencies will promote implementation of projects within the planned program and allow the financial plan to remain in balance.

Summary of Funding for Cape Cod Highway and Transit Projects

The Cape Cod federal aid target amounts, from Federal Highway Administration sources through the Commonwealth of Massachusetts, Massachusetts Highway Department, based on approximately 4.6% of the statewide amounts, are presented in Table 8, and the current amount programmed is the right column.

Table 8. Cape Cod Federal Aid Target Programmed Amounts

YEAR	TOTAL FEDERAL AID	AMOUNT PROGRAMMED
2017	\$9,517,607	\$9,357,476
2018	\$9,590,976	\$9,590,976
2019	\$8,526,439	\$8,526,439
2020	\$9,388,112	\$9,388,112
2021	\$9,172,000	\$9,172,000
2017-2021 Total	\$46,195,134	\$46,035,003

Projects programmed in years 2017-2021 reflect 2017 cost estimates. An inflation rate of 4% per year is added to project cost estimates in years 2018-2021, and therefore, the project cost estimates are by Year Of Expenditure (YOE) for the target projects.

In addition to funding of highway projects, a significant amount of TIP funding is allocated for public transportation. Table 6 shows the programming amounts for both highway and transit projects provided from the TIP. The highway totals includes projects outside of the Cape Cod TIP Target such as Cape Cod specific bridge and maintenance projects.

Table 9. Cape Cod TIP Funding Programmed for Highway and Transit Projects

YEAR	HIGHWAY	TRANSIT	TOTAL
2017	\$22,742,476	\$11,826,861	\$34,569,337
2018	\$16,940,807	\$11,140,319	\$28,081,126
2019	\$9,517,260	\$11,299,141	\$20,816,401
2020	\$9,795,462	\$11,954,513	\$21,749,975
2021	\$16,016,232	\$12,714,346	\$28,730,578
2017-2021 Total	\$75,012,237	\$58,935,180	\$133,947,417

The list of specific Cape Cod projects is presented on the following pages. From the system level anticipated revenues continue to fall short of anticipated needs as evidenced by the projects in need of funding listed in the Appendix C.

2017 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼	
► Section 1A / Federal Aid Target Projects											
► HSIP - Highway Safety Improvement Program											
	606707	Cape Cod	Dennis	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	5	HSIP	\$ 458,514	\$ 412,663	\$ 45,851	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.	
HSIP Subtotal ►							\$ 458,514	\$ 412,663	\$ 45,851	◀ 90% Federal + 10% Non-Federal	
► CMAQ - Congestion Mitigation and Air Quality Improvement Program											
	606707	Cape Cod	Dennis	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	5	CMAQ	\$ 4,945,462	\$ 3,956,370	\$ 989,092	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.	
	CC2000	Cape Cod	Multiple	Cape Cod Bicycle Rack Program	5	CMAQ	\$ 100,000	\$ 80,000	\$ 20,000	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.	
	CC1000	Cape Cod	Barnstable	BARNSTABLE - HYANNIS LOOP DEMONSTATION	5	CMAQ	\$ 685,464	\$ 548,371	\$ 137,093	CMAQ -> FTA Transfer. Total programmed = \$659,100. Year 2 of 3. Score = 60.	
CMAQ Subtotal ►							\$ 5,730,926	\$ 4,584,741	\$ 1,146,185	◀ 80% Federal + 20% Non-Federal	
► TAP - Transportation Alternatives Program											
	606707	Cape Cod	Dennis	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	5	TAP	\$ 193,036	\$ 154,429	\$ 38,607	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.	
TAP Subtotal ►							\$ 193,036	\$ 154,429	\$ 38,607	◀ 80% Federal + 20% Non-Federal	
► Non-CMAQ/HSIP/TAP (Other)											
	608544	Cape Cod	Cape Cod	BOURNE- RESURFACING AND RELATED WORK ON ROUTE 6 & 28 BYPASS ROAD	5	STP	\$ 2,400,000	\$ 1,920,000	\$ 480,000	Total programmed = \$2,400,000. Score = 49.	
	608102	Cape Cod	Cape Cod	HARWICH- IMPROVEMENTS TO PARK AND RIDE FACILITY INCLUDING A NEW BUS SHELTER AT ROUTE 124 PARK AND RIDE	5	STP	\$ 575,000	\$ 460,000	\$ 115,000	Total programmed = \$575,000. Score = 52.	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 2,975,000	\$ 2,380,000	\$ 595,000	◀ 80% Federal + 20% Non-Federal	
► Section 1A / Fiscal Constraint Analysis											
Total Federal Aid Target Funds Programmed ►							\$ 9,357,476	\$ 9,517,607	◀ Total Target	\$ 160,131	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 2,975,000	\$ 7,433,200	◀ Max. Non-CMAQ/HSIP/TAP	\$ 160,131	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►							\$ 458,514	\$ 458,514	◀ Min. HSIP	\$ -	HSIP Recommended Met
Total CMAQ Programmed ►							\$ 5,730,926	\$ 1,432,857	◀ Min. CMAQ	\$ (4,298,069)	CMAQ Recommended Met
Total TAP Programmed ►							\$ 193,036	\$ 193,036	◀ Min. TAP	\$ -	TAP Recommended Met
HSIP, CMAQ, TAP Overprogrammed							\$	(4,298,069)			
► Section 1B / Federal Aid Bridge Projects											
► Statewide Systematic Maintenance Program											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► On System											
No Projects Programmed							\$ -	\$ -	\$ -		
On System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Off-System											
No Projects Programmed							\$ -	\$ -	\$ -		
Off-System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide Bridge Inspection Program											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Section 1C / Federal Aid Non-Target Projects											
► Other Federal Aid											
No Projects Programmed							\$ -	\$ -	\$ -		
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source	
► Section 1D / Federal Aid Major & State Category Projects											
► Regional Major Infrastructure											
No Projects Programmed							\$ -	\$ -	\$ -		
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide Americans with Disability Act Implementation Plan											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide Congestion Mitigation and Air Quality											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide CMAQ Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide HSIP Program											
	BRI17	STATEWIDE	MULTIPLE	BRIDGE INSPECTION	SW	NHPP	\$ 6,250,000	\$ 5,000,000	\$ 1,250,000		
Statewide HSIP Program Subtotal ►							\$ 6,250,000	\$ 5,000,000	\$ 1,250,000	◀ 90% Federal + 10% Non-Federal	

2017 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Interstate Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ITS Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide National Freight Program Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide National Highway System Preservation Program										
	608201	CAPE COD	MULTIPLE	HARWICH- BREWSTER- ORLEANS- RESURFACING AND RELATED WORK ON ROUTE 6	5	NHPP	\$ 6,615,000	\$ 5,292,000	\$ 1,323,000	NHS + Stormwater = \$7,135,000
				Statewide NHS Preservation Program Subtotal ►			\$ 6,615,000	\$ 5,292,000	\$ 1,323,000	◀ 80% Federal + 20% Non-Federal
► Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Planning Program Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide RR Grade Crossings Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Safe Routes to Schools Program Subtotal ►			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Statewide Stormwater Retrofits										
	608201	CAPE COD	MULTIPLE	HARWICH- BREWSTER- ORLEANS- RESURFACING AND RELATED WORK ON ROUTE 6	5	STP-TE	\$ 520,000	\$ 416,000	\$ 104,000	NHS + Stormwater = \$7,135,000
				Statewide Stormwater Retrofits Subtotal ►			\$ 520,000	\$ 416,000	\$ 104,000	◀ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Transportation Enhancements Subtotal ►			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
				Other Statewide Items Subtotal ►			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
				Non-Federal Aid Subtotal ►			\$ -	\$ -	\$ -	◀ 100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
				Section 2B / Non-Federal Bridge Projects Subtotal ►			\$ -	\$ -	\$ -	◀ 100% Non-Federal

2017 Cape Cod MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 22,742,476	\$ -	\$ 22,742,476	◀ Total Spending in Region
Federal Funds ►	\$ 18,239,832	\$ -	\$ 18,239,832	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 4,502,644	\$ -	\$ 4,502,644	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2018 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

	607444	Cape Cod	Falmouth	FALMOUTH- INTERSECTION IMPROVEMENTS & RELATED WORK AT NORTH FALMOUTH HIGHWAY (ROUTE 28A), NATHAN ELLIS HIGHWAY (ROUTE 151) AND COUNTY ROAD	5	HSIP	\$ 2,699,466	\$ 2,429,519	\$ 269,947	Total programmed with 4% inflation applied = \$2,909,773 = \$210,307 TAP + \$2,699,466. 25% design under development. Possible HSIP - RSA to be conducted. Score = 63.
HSIP Subtotal ►							\$ 2,699,466	\$ 2,429,519	\$ 269,947	◀ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	607435	Cape Cod	Barnstable	BARNSTABLE- INTERSECTION IMPROVEMENTS @ FALMOUTH ROAD (ROUTE 28) & OSTERVILLE- WEST BARNSTABLE ROAD	5	CMAQ	\$ 2,404,331	\$ 1,923,465	\$ 480,866	Total programmed with 4% Inflation applied = \$2,404,331. RSA conducted. 25% design plans submitted. Score = 65.
	606596	Cape Cod	Chatham	CHATHAM- IMPROVEMENTS ON WEST MAIN STREET (ROUTE 28), FROM GEORGE RYDER ROAD TO BARN HILL ROAD	5	CMAQ	\$ 3,465,044	\$ 2,772,035	\$ 693,009	Total programmed with 4% inflation - 3,465,044. 75% design plans submitted. Score = 66.
	CC2000	Cape Cod	Multiple	Cape Cod Bicycle Rack Program	5	CMAQ	\$ 100,000	\$ 80,000	\$ 20,000	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
	CC1000	Cape Cod	Barnstable	BARNSTABLE - HYANNIS LOOP DEMONSTATION	5	CMAQ	\$ 711,828	\$ 569,462	\$ 142,366	CMAQ -> FTA Transfer. Total programmed = \$659,100. Year 2 of 3. Score = 60.
CMAQ Subtotal ►							\$ 6,681,203	\$ 5,344,962	\$ 1,336,241	◀ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

	607444	Cape Cod	Cape Cod	FALMOUTH- INTERSECTION IMPROVEMENTS & RELATED WORK AT NORTH FALMOUTH HIGHWAY (ROUTE 28A), NATHAN ELLIS HIGHWAY (ROUTE 151) AND COUNTY ROAD	5	TAP	\$ 210,307	\$ 168,246	\$ 42,061	Total programmed with 4% inflation applied = \$2,909,773 = \$210,307 TAP + \$2,699,466. 25% design under development. Possible HSIP - RSA to be conducted. Score = 63.
TAP Subtotal ►							\$ 210,307	\$ 168,246	\$ 42,061	◀ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

No Projects Programmed							\$ -	\$ -	\$ -	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 9,590,976	\$ 9,884,419	◀ Total Target	\$ 293,443	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ -	\$ 8,069,313	◀ Max. Non-CMAQ/HSIP/TAP	\$ 293,443	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ 2,699,466	\$ 458,514	◀ Min. HSIP	\$ (2,240,952)	HSIP Recommended Met
Total CMAQ Programmed ►	\$ 6,881,203	\$ 1,146,285	◀ Min. CMAQ	\$ (5,534,918)	CMAQ Recommended Met
Total TAP Programmed ►	\$ 210,307	\$ 210,307	◀ Min. TAP	\$ -	TAP Recommended Met
HSIP, CMAQ, TAP Overprogrammed \$ (7,775,870)					

► Section 1B / Federal Aid Bridge Projects

► Statewide Systematic Maintenance Program

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► On System

No Projects Programmed							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Off-System

No Projects Programmed							\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Bridge Inspection Program

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Section 1C / Federal Aid Non-Target Projects

► Other Federal Aid

No Projects Programmed							\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

► Section 1D / Federal Aid Major & State Category Projects

► Regional Major Infrastructure

No Projects Programmed							\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Americans with Disability Act Implementation Plan

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Congestion Mitigation and Air Quality

	607398	CAPE COD	MULTIPLE	YARMOUTH- BARNSTABLE- CAPE COD RAIL TRAIL EXTENSION, INCLUDES NEW BRIDGE OVER WILLOW STREET & RAILROAD (PHASE III)	5	CMAQ	\$ 7,349,831	\$ 5,879,865	\$ 1,469,966	
Statewide CMAQ Subtotal ►							\$ 7,349,831	\$ 5,879,865	\$ 1,469,966	◀ 80% Federal + 20% Non-Federal

► Statewide HSIP Program

2018 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Highway System Preservation Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 2A / Non-Federal Projects

▶ Non Federal Aid

				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Non-Federal Aid Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal

▶ Section 2B / Non-Federal Bridge Projects

▶ Section 2B / Non-Federal Bridge Projects

				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal

2018 Cape Cod MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ▶	\$ 16,940,807	\$ -	\$ 16,940,807	◀ Total Spending in Region
Federal Funds ▶	\$ 13,822,592	\$ -	\$ 13,822,592	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 3,118,215	\$ -	\$ 3,118,215	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2019 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

	607397	Cape Cod	Wellfleet	WELLFLEET- INTERSECTION IMPROVEMENTS & RELATED WORK AT ROUTE 6 & MAIN STREET	5	HSIP	\$ 2,127,428	\$ 1,914,685	\$ 212,743	Total programmed with 8% inflation applied = \$2,320,464 = \$2,127,428 CMAQ + \$193,036 TAP. RSA conducted. Preliminary design. Municipality is proponent. Score = 82. ◀ 90% Federal + 10% Non-Federal
HSIP Subtotal ►							\$ 2,127,428	\$ 1,914,685	\$ 212,743	

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	606272	Cape Cod	Barnstable	BARNSTABLE- INTERSECTION IMPROVEMENTS AT IYANOUGH ROAD (ROUTE 28) AND YARMOUTH ROAD	5	CMAQ	\$ 6,105,975	\$ 4,884,780	\$ 1,221,195	Total programmed with 8% inflation = \$6,646,775 = \$6,105,975 CMAQ + \$540,800 Statewide CMAQ). 25% design submitted. HSIP - RSA performed; CMAQ Analysis to be performed. Score = 83. Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52. ◀ 80% Federal + 20% Non-Federal
	CC2000	Cape Cod	Multiple	Cape Cod Bicycle Rack Program	5	CMAQ	\$ 100,000	\$ 80,000	\$ 20,000	
CMAQ Subtotal ►							\$ 6,205,975	\$ 4,964,780	\$ 1,241,195	

► TAP - Transportation Alternatives Program

	607397	Cape Cod	Wellfleet	WELLFLEET- INTERSECTION IMPROVEMENTS & RELATED WORK AT ROUTE 6 & MAIN STREET	5	TAP	\$ 193,036	\$ 154,429	\$ 38,607	Total programmed with 8% inflation applied = \$2,320,464 = \$2,127,428 CMAQ + \$193,036 TAP. RSA conducted. Preliminary design. Municipality is proponent. Score = 82. ◀ 80% Federal + 20% Non-Federal
TAP Subtotal ►							\$ 193,036	\$ 154,429	\$ 38,607	

► Non-CMAQ/HSIP/TAP (Other)

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ -	\$ -	\$ -	

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 8,526,439	\$ 9,884,419	◀ Total Target	\$ 1,357,980	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ -	\$ 8,086,584	◀ Max. Non-CMAQ/HSIP/TAP	\$ 1,357,980	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ 2,127,428	\$ 458,514	◀ Min. HSIP	\$ (1,668,914)	HSIP Recommended Met
Total CMAQ Programmed ►	\$ 6,205,975	\$ 1,146,285	◀ Min. CMAQ	\$ (5,059,690)	CMAQ Recommended Met
Total TAP Programmed ►	\$ 193,036	\$ 193,036	◀ Min. TAP	\$ -	TAP Recommended Met
HSIP, CMAQ, TAP Overprogrammed \$ (6,728,604)					

► Section 1B / Federal Aid Bridge Projects

► Statewide Systematic Maintenance Program

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	

► On System

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
On System Subtotal ►							\$ -	\$ -	\$ -	

► Off-System

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Off-System Subtotal ►							\$ -	\$ -	\$ -	

► Statewide Bridge Inspection Program

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	

► Section 1C / Federal Aid Non-Target Projects

► Other Federal Aid

No Projects Programmed							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	

► Section 1D / Federal Aid Major & State Category Projects

► Regional Major Infrastructure

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	

► Statewide Americans with Disability Act Implementation Plan

No Projects Programmed							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	

► Statewide Congestion Mitigation and Air Quality

	606272	CAPE COD	BANSTABLE	BARNSTABLE- INTERSECTION IMPROVEMENTS AT IYANOUGH ROAD (ROUTE 28) AND YARMOUTH ROAD	5	CMAQ	\$ 540,800	\$ 432,640	\$ 108,160	Total programmed with 8% inflation = \$6,646,775 = \$6,105,975 CMAQ + \$540,800 Statewide CMAQ). 25% design submitted. HSIP - RSA performed; CMAQ Analysis to be performed. Score = 83. ◀ 80% Federal + 20% Non-Federal
Statewide CMAQ Subtotal ►							\$ 540,800	\$ 432,640	\$ 108,160	

► Statewide HSIP Program

2019 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
	608571	CAPE COD	MULTIPLE	BOURNE TO FALMOUTH - GUIDE AND TRAFFIC SIGN REPLACEMENT ON A SECTION OF ROUTE 28	5	HSIP	\$ 450,021	\$ 405,019	\$ 45,002	
Statewide HSIP Program Subtotal ▶							\$ 450,021	\$ 405,019	\$ 45,002	◀ 90% Federal + 10% Non-Federal
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide National Highway System Preservation Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Non-Federal Aid Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal

2019 Cape Cod MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Totals ▼	
Total ▶	\$ 9,517,260	\$ -	\$ 9,517,260	◀ Total Spending in Region
Federal Funds ▶	\$ 7,871,553	\$ -	\$ 7,871,553	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 1,645,707	\$ -	\$ 1,645,707	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2020 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

	607319	Cape Cod	Mashpee	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	5	HSIP	\$ 2,997,745	\$ 2,697,971	\$ 299,775	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
HSIP Subtotal ►							\$ 2,997,745	\$ 2,697,971	\$ 299,775	◀ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	606900	Cape Cod	Bourne	BOURNE- TRAFFIC IMPROVEMENTS @ BELMONT CIRCLE AT ROUTES 6/25/28	5	CMAQ	\$ 6,048,000	\$ 4,838,400	\$ 1,209,600	Total programmed with 12% inflation = \$6,048,000. Improvements focused primarily on bicycle and pedestrian accommodation improvements. To be designed by MassDOT. Score = 82.
	CC2000	Cape Cod	Multiple	Cape Cod Bicycle Rack Program	5	CMAQ	\$ 100,000	\$ 80,000	\$ 20,000	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
CMAQ Subtotal ►							\$ 6,148,000	\$ 4,918,400	\$ 1,229,600	◀ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

	607319	Cape Cod	Mashpee	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	5	TAP	\$ 242,367	\$ 193,894	\$ 48,473	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
TAP Subtotal ►							\$ 242,367	\$ 193,894	\$ 48,473	◀ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

No Projects Programmed							\$ -	\$ -	\$ -	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed	\$ 9,388,112	\$ 10,118,502	◀ Total Target	\$ 730,390	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed	\$ -	\$ 8,271,336	◀ Max. Non-CMAQ/HSIP/TAP	\$ 730,390	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed	\$ 2,997,745	\$ 458,514	◀ Min. HSIP	\$ (2,539,231)	HSIP Recommended Met
Total CMAQ Programmed	\$ 6,148,000	\$ 1,146,285	◀ Min. CMAQ	\$ (5,001,715)	CMAQ Recommended Met
Total TAP Programmed	\$ 242,367	\$ 242,367	◀ Min. TAP	\$ -	TAP Recommended Met
HSIP, CMAQ, TAP Overprogrammed \$ (7,540,946)					

► Section 1B / Federal Aid Bridge Projects

► Statewide Systematic Maintenance Program

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► On System

No Projects Programmed							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Off-System

No Projects Programmed							\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Bridge Inspection Program

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Section 1C / Federal Aid Non-Target Projects

► Other Federal Aid

No Projects Programmed							\$ -	\$ -	\$ -	
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

► Section 1D / Federal Aid Major & State Category Projects

► Regional Major Infrastructure

No Projects Programmed							\$ -	\$ -	\$ -	
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Americans with Disability Act Implementation Plan

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Congestion Mitigation and Air Quality

No Projects Programmed							\$ -	\$ -	\$ -	
Statewide CMAQ Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide HSIP Program

2020 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide National Freight Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Highway System Preservation Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Planning Program Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Safe Routes to Schools Program Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Statewide Stormwater Retrofits										
	608598	CAPE COD	ORLEANS	ORLEANS - STORMWATER IMPROVEMENTS ALONG ROUTE 28	5	STP-TE	\$ 407,350	\$ 325,880	\$ 81,470	
Statewide Stormwater Retrofits Subtotal ▶							\$ 407,350	\$ 325,880	\$ 81,470	◀ 80% Federal + 20% Non-Federal
▶ Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ▶							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
Other Statewide Items Subtotal ▶							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2A / Non-Federal Projects										
▶ Non Federal Aid										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Non-Federal Aid Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal
▶ Section 2B / Non-Federal Bridge Projects										
▶ Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ▶							\$ -	\$ -	\$ -	◀ 100% Non-Federal

2020 Cape Cod MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ▶	\$ 9,795,462	\$ -	\$ 9,795,462	◀ Total Spending in Region
Federal Funds ▶	\$ 8,136,144	\$ -	\$ 8,136,144	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 1,659,318	\$ -	\$ 1,659,318	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2021 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼	
► Section 1A / Federal Aid Target Projects											
► HSIP - Highway Safety Improvement Program											
	607319	Cape Cod	Mashpee	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	5	HSIP	\$ 5,680,275	\$ 5,112,248	\$ 568,028	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.	
HSIP Subtotal ►							\$ 5,680,275	\$ 5,112,248	\$ 568,028	◀ 90% Federal + 10% Non-Federal	
► CMAQ - Congestion Mitigation and Air Quality Improvement Program											
	607405	Cape Cod	Chatham	CHATHAM- INTERSECTION IMPROVEMENTS & RELATED WORK AT MAIN STREET (ROUTE 28), DEPOT ROAD, QUEEN ANNE ROAD AND CROWELL ROAD	5	CMAQ	\$ 3,072,000	\$ 2,457,600	\$ 614,400	Total programmed with 16% inflation applied = \$3,072,000. CMAQ analysis to be conducted. Municipality is proponent. . Score = 76.	
	CC2000	Cape Cod	Multiple	Cape Cod Bicycle Rack Program	5	CMAQ	\$ 100,000	\$ 80,000	\$ 20,000	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.	
CMAQ Subtotal ►							\$ 3,172,000	\$ 2,537,600	\$ 634,400	◀ 80% Federal + 20% Non-Federal	
► TAP - Transportation Alternatives Program											
	607319	Cape Cod	Mashpee	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	5	TAP	\$ 319,725	\$ 255,780	\$ 63,945	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.	
TAP Subtotal ►							\$ 319,725	\$ 255,780	\$ 63,945	◀ 80% Federal + 20% Non-Federal	
► Non-CMAQ/HSIP/TAP (Other)											
No Projects Programmed							\$ -	\$ -	\$ -		
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Section 1A / Fiscal Constraint Analysis											
Total Federal Aid Target Funds Programmed ►							\$ 9,172,000	\$ 10,118,502	◀ Total Target	\$ 946,502	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ -	\$ 8,193,978	◀ Max. Non-CMAQ/HSIP/TAP	\$ 946,502	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►							\$ 5,680,275	\$ 458,514	◀ Min. HSIP	\$ (5,221,761)	HSIP Recommended Met
Total CMAQ Programmed ►							\$ 3,172,000	\$ 1,146,285	◀ Min. CMAQ	\$ (2,025,715)	CMAQ Recommended Met
Total TAP Programmed ►							\$ 319,725	\$ 319,725	◀ Min. TAP	\$ -	TAP Recommended Met
HSIP, CMAQ, TAP Overprogrammed							\$	(7,247,476)			
► Section 1B / Federal Aid Bridge Projects											
► Statewide Systematic Maintenance Program											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► On System											
No Projects Programmed							\$ -	\$ -	\$ -		
On System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Off-System											
	608617	CAPE COD	HARWICH	HARWICH - BRIDGE REPLACEMENT, H-10-019, AZALEA DRIVE OVER HERRING RIVER	D5	STP-BR-OFF	\$ 1,043,768	\$ 835,014	\$ 208,754		
Off-System Subtotal ►							\$ 1,043,768	\$ 835,014	\$ 208,754	◀ 80% Federal + 20% Non-Federal	
► Statewide Bridge Inspection Program											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide Bridge Inspection Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Section 1C / Federal Aid Non-Target Projects											
► Other Federal Aid											
No Projects Programmed							\$ -	\$ -	\$ -		
Other Federal Aid Subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source	
► Section 1D / Federal Aid Major & State Category Projects											
► Regional Major Infrastructure											
No Projects Programmed							\$ -	\$ -	\$ -		
Regional Major Infrastructure Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide Americans with Disability Act Implementation Plan											
No Projects Programmed							\$ -	\$ -	\$ -		
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal	
► Statewide Congestion Mitigation and Air Quality											
	608422	CAPE COD	SANDWICH	SANDWICH- CONSTRUCTION OF SHARED USE PATH ALONG SERVICE ROAD FROM ROUTE 130 TO CHASE ROAD	5	CMAQ	\$ 5,800,464	\$ 4,640,371	\$ 1,160,093		
Statewide CMAQ Subtotal ►							\$ 5,800,464	\$ 4,640,371	\$ 1,160,093	◀ 80% Federal + 20% Non-Federal	

2021 Cape Cod MPO Transportation Improvement Program

Amendment/ Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
▶ Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide HSIP Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Interstate Maintenance Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
▶ Statewide Intelligent Transportation Systems										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ITS Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Freight Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide National Freight Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide National Highway System Preservation Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide NHS Preservation Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Planning Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Planning Program Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Railroad Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide RR Grade Crossings Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Safe Routes to Schools Program Subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Stormwater Retrofits Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Transportation Enhancements Subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
				Other Statewide Items Subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

▶ Section 2A / Non-Federal Projects

▶ Non Federal Aid

				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
				Non-Federal Aid Subtotal ▶			\$ -	\$ -	\$ -	◀ 100% Non-Federal

▶ Section 2B / Non-Federal Bridge Projects

▶ Section 2B / Non-Federal Bridge Projects

				No Projects Programmed		NFA	\$ -	\$ -	\$ -	
				Section 2B / Non-Federal Bridge Projects Subtotal ▶			\$ -	\$ -	\$ -	◀ 100% Non-Federal

2021 Cape Cod MPO TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ▶	\$ 16,016,232	\$ -	\$ 16,016,232	◀ Total Spending in Region
Federal Funds ▶	\$ 13,381,013	\$ -	\$ 13,381,013	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 2,635,219	\$ -	\$ 2,635,219	◀ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public Works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/highwayflaggers/main.aspx>

Transportation Improvement Program (TIP)

Project List (FY2017)

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
	5307 RTD0004386	Cape Cod Regional Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV		\$521,692	\$130,423	\$0	\$0	\$652,115
	5307 RTD0004387	Cape Cod Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE		\$5,041,517	\$1,260,379	\$0	\$0	\$6,301,896
	5307 RTD0004388	Cape Cod Regional Transit Authority	117L00	MOBILITY MANAGEMENT		\$1,183,200	\$295,800	\$0	\$0	\$1,479,000
	5307 RTD0004389	Cape Cod Regional Transit Authority	300900	OPERATING ASSISTANCE		\$600,000	\$600,000	\$0	\$0	\$1,200,000
	5307 RTD0005168	Cape Cod Regional Transit Authority	114208	ACQUIRE - ADP SOFTWARE		\$377,600	\$94,400	\$0	\$0	\$472,000
	5307 RTD0005171	Cape Cod Regional Transit Authority	117000	OTHER CAPITAL ITEMS (BUS)		\$242,000	\$60,500	\$0	\$0	\$302,500
				Subtotal		\$7,966,009	\$2,441,502	\$0	\$0	\$10,407,511
5309										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5310										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5311										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5337										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0004382	Cape Cod Regional Transit Authority	113400	REHAB/RENOVATE BUS STATIONS		\$320,000	\$80,000	\$0	\$0	\$400,000
	5339 RTD0004383	Cape Cod Regional Transit Authority	119302	CONSTRUCTION - BUS SHELTERS ACQUISITION OF BUS SUPPORT		\$51,200	\$12,800	\$0	\$0	\$64,000
	5339 RTD0004390	Cape Cod Regional Transit Authority	114200	EQUIP/FACILITIES		\$56,000	\$14,000	\$0	\$0	\$70,000
	5339 RTD0005169	Cape Cod Regional Transit Authority	114211	ACQUIRE - SUPPORT VEHICLES		\$45,329	\$11,332	\$0	\$0	\$56,661
	5339 RTD0005170	Cape Cod Regional Transit Authority	114209	ACQUIRE - MOBILE SURV/SECURITY EQUIP		\$96,631	\$24,158	\$0	\$0	\$120,789
	5339 RTD0005167	Cape Cod Regional Transit Authority	114207	ACQUIRE - ADP HARDWARE		\$227,520	\$56,880	\$0	\$0	\$284,400
	5339 RTD0005197	Cape Cod Regional Transit Authority	117000	OTHER CAPITAL ITEMS (BUS)		\$338,800	\$84,700	\$0	\$0	\$423,500
				Subtotal		\$1,135,480	\$283,870	\$0	\$0	\$1,419,350
5320										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
				Total		\$9,101,489	\$2,725,372	\$0	\$0	\$11,826,861

Funds listed under the Carry Over column are included in the Federal Amount

Transportation Improvement Program (TIP)

Project List (FY2018)

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
				ACQUISITION OF BUS SUPPORT						
	5307 RTD0004393	Cape Cod Regional Transit Authority	114200	EQUIP/FACILITIES	2017 - \$7,235	\$7,235	\$1,809	\$0	\$0	\$9,044
	5307 RTD0004394	Cape Cod Regional Transit Authority	114207	ACQUIRE - ADP HARDWARE	2017 - \$24,000	\$24,000	\$6,000	\$0	\$0	\$30,000
	5307 RTD0004397	Cape Cod Regional Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2017 - \$532,126	\$532,126	\$133,032	\$0	\$0	\$665,158
	5307 RTD0004398	Cape Cod Regional Transit Authority	117L00	MOBILITY MANAGEMENT	2017 - \$1,206,864	\$1,206,864	\$301,716	\$0	\$0	\$1,508,580
	5307 RTD0004399	Cape Cod Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE	2017 - \$5,209,978	\$5,209,978	\$1,302,495	\$0	\$0	\$6,512,473
	5307 RTD0004400	Cape Cod Regional Transit Authority	300900	OPERATING ASSISTANCE	2017 - \$600,000	\$600,000	\$600,000	\$0	\$0	\$1,200,000
	5307 RTD0005174	Cape Cod Regional Transit Authority	117000	OTHER CAPITAL ITEMS (BUS)	2017 - \$520,000	\$520,000	\$130,000	\$0	\$0	\$650,000
				Subtotal		\$8,100,203	\$2,475,052	\$0	\$0	\$10,575,255
5309										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5310										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5311										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5337										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0004391	Cape Cod Regional Transit Authority	113400	REHAB/RENOVATE BUS STATIONS	2017 - \$152,000	\$152,000	\$38,000	\$0	\$0	\$190,000
	5339 RTD0004396	Cape Cod Regional Transit Authority	119302	CONSTRUCTION - BUS SHELTERS	2017 - \$52,800	\$52,800	\$13,200	\$0	\$0	\$66,000
	5339 RTD0005172	Cape Cod Regional Transit Authority	114211	ACQUIRE - SUPPORT VEHICLES	2016 - \$53,651	\$53,651	\$13,413	\$0	\$0	\$67,064
	5339 RTD0005173	Cape Cod Regional Transit Authority	114209	ACQUIRE - MOBILE SURV/SECURITY EQUIP	2016 - \$193,600	\$193,600	\$48,400	\$0	\$0	\$242,000
				Subtotal		\$452,051	\$113,013	\$0	\$0	\$565,064
5320										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
				Total		\$8,552,254	\$2,588,065	\$0	\$0	\$11,140,319

Funds listed under the Carry Over column are included in the Federal Amount

Transportation Improvement Program (TIP)

Project List (FY2019)

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
	5307 RTD0004401	Cape Cod Regional Transit Authority		300900 OPERATING ASSISTANCE	2018 - \$600,000	\$600,000	\$600,000	\$0	\$0	\$1,200,000
	5307 RTD0004402	Cape Cod Regional Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2018 - \$542,769	\$542,769	\$135,692	\$0	\$0	\$678,461
	5307 RTD0004403	Cape Cod Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE	2018 - \$5,361,677	\$5,361,677	\$1,340,419	\$0	\$0	\$6,702,096
	5307 RTD0004404	Cape Cod Regional Transit Authority	117L00	MOBILITY MANAGEMENT ACQUISITION OF BUS SUPPORT	2018 - \$1,231,001	\$1,231,001	\$307,750	\$0	\$0	\$1,538,751
	5307 RTD0004406	Cape Cod Regional Transit Authority		114200 EQUIP/FACILITIES	2018 - \$56,516	\$56,516	\$14,129	\$0	\$0	\$70,645
	5307 RTD0004407	Cape Cod Regional Transit Authority		114207 ACQUIRE - ADP HARDWARE	2018 - \$23,765	\$23,765	\$5,941	\$0	\$0	\$29,706
	5307 RTD0005176	Cape Cod Regional Transit Authority		117000 OTHER CAPITAL ITEMS (BUS)	2018 - \$504,000	\$504,000	\$126,000	\$0	\$0	\$630,000
				Subtotal		\$8,319,728	\$2,529,931	\$0	\$0	\$10,849,659
5309										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5310										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5311										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5337										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0004405	Cape Cod Regional Transit Authority		113400 REHAB/RENOVATE BUS STATIONS	2018 - \$96,000	\$96,000	\$24,000	\$0	\$0	\$120,000
	5339 RTD0004409	Cape Cod Regional Transit Authority		119302 CONSTRUCTION - BUS SHELTERS	2018 - \$51,200	\$51,200	\$12,800	\$0	\$0	\$64,000
	5339 RTD0005175	Cape Cod Regional Transit Authority		114211 ACQUIRE - SUPPORT VEHICLES	2018 - \$99,586	\$99,586	\$24,896	\$0	\$0	\$124,482
	5339 RTD0005198	Cape Cod Regional Transit Authority		117000 OTHER CAPITAL ITEMS (BUS)	2017 - \$112,800	\$112,800	\$28,200	\$0	\$0	\$141,000
				Subtotal		\$359,586	\$89,896	\$0	\$0	\$449,482
5320										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
				Total		\$8,679,314	\$2,619,827	\$0	\$0	\$11,299,141

Funds listed under the Carry Over column are included in the Federal Amount

**Transportation Improvement Program (TIP)
Project List (FY2020)**

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
	5307 RTD0004412	Cape Cod Regional Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2019 - \$553,624	\$553,624	\$138,406	\$0	\$0	\$692,030
	5307 RTD0004413	Cape Cod Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE ACQUISITION OF BUS SUPPORT	2019 - \$5,541,833	\$5,541,833	\$1,385,458	\$0	\$0	\$6,927,291
	5307 RTD0004414	Cape Cod Regional Transit Authority		114200 EQUIP/FACILITIES	2019 - \$80,000	\$80,000	\$20,000	\$0	\$0	\$100,000
	5307 RTD0004415	Cape Cod Regional Transit Authority		114207 ACQUIRE - ADP HARDWARE	2018 - \$19,200; 2019 - \$92,800	\$112,000	\$28,000	\$0	\$0	\$140,000
	5307 RTD0004416	Cape Cod Regional Transit Authority	117L00	MOBILITY MANAGEMENT	2019 - \$1,255,621	\$1,255,621	\$313,905	\$0	\$0	\$1,569,526
	5307 RTD0004417	Cape Cod Regional Transit Authority		300900 OPERATING ASSISTANCE	2019 - \$600,000	\$600,000	\$600,000	\$0	\$0	\$1,200,000
	5307 RTD0004420	Cape Cod Regional Transit Authority		119302 CONSTRUCTION - BUS SHELTERS	2019 - \$56,000	\$56,000	\$14,000	\$0	\$0	\$70,000
	5307 RTD0005177	Cape Cod Regional Transit Authority		114209 ACQUIRE - MOBILE SURV/SECURITY EQUIP	2019 - \$66,133	\$66,133	\$16,533	\$0	\$0	\$82,666
				Subtotal		\$8,265,211	\$2,516,302	\$0	\$0	\$10,781,513
5309										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5310										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5311										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5337										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0004419	Cape Cod Regional Transit Authority		113400 REHAB/RENOVATE BUS STATIONS	2019 - \$516,000	\$516,000	\$129,000	\$0	\$0	\$645,000
	5339 RTD0005178	Cape Cod Regional Transit Authority		117000 OTHER CAPITAL ITEMS (BUS)	2018 - \$422,400	\$422,400	\$105,600	\$0	\$0	\$528,000
				Subtotal		\$938,400	\$234,600	\$0	\$0	\$1,173,000
5320										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
				Total		\$9,203,611	\$2,750,902	\$0	\$0	\$11,954,513

Funds listed under the Carry Over column are included in the Federal Amount

Transportation Improvement Program (TIP)

Project List (FY2021)

FTA Program	Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
	5307 RTD0005179	Cape Cod Regional Transit Authority	117L00	MOBILITY MANAGEMENT	2020 - \$1,274,456	\$1,274,456	\$318,614	\$0	\$0	\$1,593,070
	5307 RTD0005180	Cape Cod Regional Transit Authority	117C00	NON FIXED ROUTE ADA PARA SERV	2020 - \$561,928	\$561,928	\$140,482	\$0	\$0	\$702,410
	5307 RTD0005181	Cape Cod Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE	2020 - \$5,624,960	\$5,624,960	\$1,406,240	\$0	\$0	\$7,031,200
	5307 RTD0005188	Cape Cod Regional Transit Authority	300900	OPERATING ASSISTANCE	2020 - \$600,000	\$600,000	\$600,000	\$0	\$0	\$1,200,000
	5307 RTD0005182	Cape Cod Regional Transit Authority	114207	ACQUIRE - ADP HARDWARE	2019 - \$112,000	\$112,000	\$28,000	\$0	\$0	\$140,000
	5307 RTD0005183	Cape Cod Regional Transit Authority	114209	ACQUIRE - MOBILE SURV/SECURITY EQUIP	2020 - \$66,133	\$66,133	\$16,533	\$0	\$0	\$82,666
	5307 RTD0005184	Cape Cod Regional Transit Authority	119302	CONSTRUCTION - BUS SHELTERS	2020 - \$56,000	\$56,000	\$14,000	\$0	\$0	\$70,000
	5307 RTD0005186	Cape Cod Regional Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT	2020 - \$80,000	\$80,000	\$20,000	\$0	\$0	\$100,000
				Subtotal		\$8,375,477	\$2,543,869	\$0	\$0	\$10,919,346
5309										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5310										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5311										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5337										
				Subtotal		\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0005185	Cape Cod Regional Transit Authority	114301	CONSTRUCT - ADMINISTRATIVE BUILDING	2020 - \$516,000	\$516,000	\$129,000	\$0	\$0	\$645,000
				Subtotal		\$516,000	\$129,000	\$0	\$0	\$645,000
5320										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Federal										
				Subtotal		\$0	\$0	\$0	\$0	\$0
Other Non-Federal										
Other Non-Federal	RTD0005187	Cape Cod Regional Transit Authority	111202	BUY REPLACEMENT 35-FT BUS		\$0	\$1,150,000	\$0	\$0	\$1,150,000
				Subtotal		\$0	\$1,150,000	\$0	\$0	\$1,150,000
				Total		\$8,891,477	\$3,822,869	\$0	\$0	\$12,714,346

Funds listed under the Carry Over column are included in the Federal Amount

Glossary

Table 10. Definitions Used in Project Listings

LABEL	DESCRIPTION
DESCRIPTION	This column is a brief description of the project. Complete descriptions can be obtained through the project proponent.
MUNICIPALITY	This column lists the town(s) of project location, “Capewide” for a regional project. The project proponent may also be listed in this column, e.g. “CCRTA, Capewide.”
SID #	(State identification number) This column contains the number of the project assigned by the state. When a MHD “PROJIS” number has been assigned to the project, this number is included.
FUND	Proposed funding category for the project (described in A6. Transportation Funding Programs)
FED FUNDS	Estimated federal share cost of the project.
STATE FUNDS	Estimated state share cost of the project.
TOTAL COST	Estimated total project cost.
STATEWIDE	Anywhere in the Commonwealth of Massachusetts.
CAPEWIDE	Anywhere on Cape Cod (Barnstable County).

Table 11. Acronyms

ACRONYM	MEANING
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ARC	Available Reserve Capacity
BTP&D	(Massachusetts) Bureau of Transportation Planning and Development
CAA	Clean Air Act Amendments of 1990
CEPO	Capital Expenditure and Program Office
CCC	Cape Cod Commission
CCJTC	Cape Cod Joint Transportation Committee
CCRTA	Cape Cod Regional Transit Authority
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMR	Code of Massachusetts Regulations
CO	Carbon Monoxide
CTPS	Central Transportation Planning Staff
CZM	(Massachusetts) Coastal Zone Management
DCPO	Division of Capital Planning and Operations
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
EOTPW	(Massachusetts) Executive Office of Transportation and Public Works (2007)
EPA	Environmental Protection Agency
ESC	(Massachusetts) Enhancements Steering Committee
FA	Federal Aid
FAST	Fixing America's Surface Transportation (FAST) Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year or Federal Fiscal Year
GPS	Global Positioning System
HPP	High Priority Project
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITC	Intermodal Transportation Center
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation System(s)
LOS	Level of Service
LRTP	Long Range Transportation Plan
MAP	Mobility Assistance Program
MAP-21	Moving Ahead for Progress in the 21st Century
MassDOT	Massachusetts Department of Transportation
MEPA	Massachusetts Environmental Protection Act
MHD	Massachusetts Highway Department or MassHighway (now MassDOT/Highway Division)
MPO	Metropolitan Planning Organization or Cape Cod Metropolitan Planning Organization
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
PPP	Public Participation Process, or Public Participation Plan
PWED	Public Works Economic Development Program
RPA	Regional Planning Agency
RPP	Regional Policy Plan
RTA	Regional Transit Authority
RTP	Regional Transportation Plan
SIP	State Implementation Plan
SOV	Single Occupancy Vehicle
STBG	Surface Transportation Block Grant
STEPA	Surface Transportation Extension Act of 1997
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TA	Transportation Alternatives

TAP	Transportation Alternatives Program
TAZ	Traffic Analysis Zone
TEA-21	Transportation Equity Act for the 21st Century
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TSM	Transportation Systems Management
USGS	United States Geographical Survey
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
VPD	Vehicles Per Day
VPH	Vehicles Per Hour

Appendices

Appendix A: Project Evaluation

Regional Transportation Plan Consistency

All projects included in the Transportation Improvement Program (TIP) are either specifically identified in the Regional Transportation Plan (RTP) or are consistent with programs in the RTP. Looking at the first time band (2016-2020) in the RTP, phase 1 of the Hyannis Access Study (intersection of Route 28 and Yarmouth Road) appears and is programmed in TIP in FY2019. Also in the first time band is "Route 28 Multimodal Improvements." This appears as a series of projects in the 2017-2021 TIP. Other projects in the 2017-2021 TIP are consistent with programs in the RTP such as "Roadway Rehabilitation & Reconstruction" and "Bicycle/Pedestrian Projects."

Furthermore, the goals, objectives, performance measures, and recommendations of the 2016 RTP were used in the development of the TIP Transportation Evaluation Criteria.

Project Evaluation Process

All highway projects under consideration for funding through the TIP are scored using the Cape Cod Metropolitan Planning Organization (MPO)'s TIP Transportation Evaluation Criteria. These criteria were approved by the Cape Cod MPO in 2016 following the review and recommendation of the Cape Cod Joint Transportation Committee. Projects are scored each spring based on the latest information available. The resulting project scores are one of the considerations in selecting projects for funding in the TIP. Other considerations include, but are not limited to:

- Project evaluation score,
- Project readiness,
- Project cost (in relation to available funding),
- Project qualification for different funding programs,
- Greenhouse gas (GHG) impacts,
- Title VI/Equity, and
- Community support.

The following pages presents the scores for each project and the criteria used to arrive at these scores. The projects where evaluated by Cape Cod MPO staff and were reviewed by the CCJTC and the Cape Cod MPO.

Transit projects are evaluated and recommended for inclusion in the TIP by the Cape Cod Regional Transit Authority Advisory Board.

Cape Cod TIP Project Evaluation Scoring Summary

(For FFY2017-2021 TIP)

See www.capecodcommission.org/tip for a map of the projects and data layers used to score the projects.

Project#	Project	System Preservation and Modernization			Mobility			Safety		Economic Impact			Environmental and Health Effects			Cost Effectiveness			Policy Support					Proposed TIP Year (Future = NOT funded)	Funded with statewide funds (outside of target)	Title VI Population Affected (I=Income; M = Minority; LEP = Limited English Proficiency)	Cost Estimate				
		A1. Primary asset condition / effect on condition	A2. Enhancements to other assets	A3. Use of modern technology to improve efficiency and support ITS regional efforts	B1. Existing motorist congestion / effect on motorist congestion	B2. Effect on mobility / accommodation of non-motorists	B3. Effect on connectivity / access	C1. Motorist crash history and anticipated safety impact	C2. Non-motorist crash history and anticipated safety impact	D1. Effect on access to or within a regionally-designated economic development area	D2. Effect on access to or within a locally-designated business district	D3. Effect on connections between housing, job, cultural centers, & essential services within & beyond the region or effect on the freight network	E1. Effect on wetlands, wildlife, or other resource protection	E2. Effect on water quality through stormwater management and treatment with an emphasis on for nitrogen	E3. Effect on air quality / GHG emission	E4. Coastal Resiliency / Sea Level Rise Vulnerability	E5. Effect on cultural resources or open space	E6. Healthy Transportation Options	F1. Project cost per use	G1. Community support (as demonstrated through highest elected officials)	G2. Regional plans/policies	G3. Local plans/policies	G4. Project supports Federal or State (including MassDOT) policies and goals not accounted for in other criteria					Total Score			
606272	Barnstable, Rte 28 at Yarmouth Rd	15	10	9	4	3	3	5	2	4	3	3	0	1	1	0	0	1	10	3	3	2	1	83	2019		I, M, LEP	\$6,154,421			
607398	Yarmouth-Barnstable, Cape Cod Rail Trail Extension	15	10	7	3	3	3	3	5	4	3	3	0	0	2	0	1	1	10	3	3	2	1	82	2018	X	I, M, LEP	\$7,349,831			
607397	Wellfleet, Rte 6 at Main St	15	10	9	3	3	3	5	4	3	3	3	1	1	2	0	0	1	8	3	3	1	1	82	2019		None	\$2,000,400			
606900	Bourne, Belmont Circle Multi-modal Improvements	12	10	5	3	3	3	5	4	4	3	3	1	1	1	0	1	1	15	2	3	1	1	82	2020		M	\$5,040,000			
607319	Mashpee, Rte 151	12	10	7	4	3	3	5	4	3	3	3	1	1	1	0	1	1	12	2	2	1	1	80	2020		M, LEP	\$8,250,100			
606707	Dennis, Rte 28 Corridor & Streetscape Improvements	12	10	5	2	3	3	5	4	4	3	3	2	1	2	0	1	1	10	2	3	2	1	79	2017		I, M	\$5,597,012			
608196	Dennis, Route 28 Streetscape Improvements (Phase 2)	12	10	7	2	3	3	3	4	4	3	3	1	1	2	0	1	1	12	2	3	1	1	79	Future		I, M	\$4,500,000			
607405	Chatham, Rte 28 at Main St, Depot Rd, Queen Anne Rd and Crowell Rd	15	10	9	4	3	3	3	3	0	3	3	0	1	1	0	0	1	10	2	3	1	1	76	2021		None	\$2,400,000			
608422	Sandwich, Shared Use Path on Service Rd (Rte 130 to Chase Rd)	15	10	5	3	3	3	3	4	3	2	3	0	0	2	0	1	1	10	3	3	1	1	76	2021	X	M	\$5,800,464			
607394	Yarmouth, Rte 6 Exit 8 Ramps	15	7	7	3	3	2	5	2	4	3	3	0	1	1	0	0	1	10	1	1	1	1	71	Future		I, M, LEP	\$5,000,400			
606276	Barnstable, Route 132 at Route 6A	12	7	8	3	2	1	3	3	2	3	2	0	1	1	0	1	1	10	3	2	1	1	67	Future		I, M, LEP	\$1,200,000			
607435	Barnstable, Rte 28 at Osterville-West Barnstable Rd	8	10	8	3	3	2	5	2	0	0	2	0	1	1	0	0	1	12	2	3	1	1	65	2018		M, LEP	\$2,311,857			
607444	Falmouth, Rte 28A at Rte 151	10	10	8	1	3	3	5	2	0	3	1	0	1	1	0	0	1	8	3	1	1	1	63	2018		M	\$2,797,859			
608264	Yarmouth, Rte 28 Resurfacing and Related Work	15	7	0	1	2	2	2	3	2	1	1	1	1	0	0	1	1	15	1	3	1	1	61	Future		I, M, LEP	\$4,000,000			
CC1000	Barnstable, CCRTA Hyannis Loop Demo	8	3	3	3	3	3	2	2	4	3	3	0	0	1	0	0	1	15	2	2	1	1	60	2017		I, M, LEP	\$659,100			
606082	Bourne, Rte 6 Scenic Highway Median Installation	12	7	0	1	1	2	5	2	3	2	2	0	1	0	0	0	0	15	2	3	1	1	60	Future		M	\$8,050,000			
CC2000	Cape Cod, Bicycle Rack Program	15	0	0	1	2	2	0	1	2	2	1	0	0	2	0	1	1	15	3	2	1	1	52	2017		TBD	\$100,000			
608102	Harwich, Improvements at Rte 124 Park and Ride	15	8	0	1	2	0	1	1	0	0	2	0	0	1	0	0	1	15	1	2	1	1	52	2017		I, M, LEP	\$575,000			
606236	Barnstable, Rte 28 Resurfacing and Related Work	15	3	0	1	1	1	2	2	2	1	1	1	1	0	0	0	0	15	1	2	1	1	51	Future		I, M, LEP	\$2,875,000			
608544	Bourne, Rte 6&28 Bypass Rd Resurfacing and Related Work	15	3	0	1	0	1	2	0	2	1	2	1	1	0	0	0	0	15	1	2	1	1	49	2017		M	\$2,400,000			
608201	Har-Brew-Orl, Route 6 Resurfacing	12	5	0	1	0	1	2	0	2	1	2	1	1	0	0	0	0	15	1	2	1	1	48	2017	X	I, M	\$7,135,000			
608545	Yarmouth, Rte 6 Resurfacing and Related Work	15	3	0	1	0	1	2	0	2	1	2	1	1	0	0	0	0	12	0	2	1	1	45	Future		I, M, LEP	\$5,750,000			
608571	Bourne-Falmouth, Rte 28 Guide and Traffic Sign Replacements	12	0	0	0	0	0	5	0	1	1	1	0	0	0	0	0	0	15	1	1	0	1	38	2019	X	M	\$450,021			
608598	Orleans, Rte 28 Stormwater Improvements	4	0	0	1	1	0	2	2	0	0	0	2	1	0	0	1	0	15	2	2	2	1	36	2020	X	I	\$407,350			
608617	Harwich, Bridge Replacement - Azalea Dr over Herring River	15	8	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	5	2	2	1	1	36	2021	X	I, M	\$1,043,768			
Printed on: 6/28/2016		Maximum Possible			15	10	10	4	3	3	5	5	4	3	3	2	2	2	2	1	1	15	4	3	3	5	100				

Cape Cod TIP Project Evaluation Criteria

Category	Criteria	Points (out of 100)
System Preservation and Modernization	<ul style="list-style-type: none"> Pavement and signal equipment improvement Sidewalks and other infrastructure enhancement Use of modern technology 	35
Mobility	<ul style="list-style-type: none"> Motorist congestion Non-motorist congestion Connectivity / access Mobility / accommodation of non-motorists 	10
Safety	<ul style="list-style-type: none"> Motorist crash history and anticipated safety impact Non-motorist crash history and anticipated safety impact 	10
Economic Impact	<ul style="list-style-type: none"> Access to or within a regionally-designated economic development area Access to or within a locally-designated business district Connections between housing, job, cultural centers, and essential services 	10
Environmental and Health Effects	<ul style="list-style-type: none"> Wetlands, wildlife, or other resource protection Water quality through stormwater management and treatment Air quality / GHG emission Coastal Resiliency / Sea Level Rise Vulnerability Cultural resources or open space Healthy Transportation Options 	10
Cost Effectiveness	<ul style="list-style-type: none"> Project cost per user 	15
Policy Support	<ul style="list-style-type: none"> Regional plans/policies Local plans/policies State or MassDOT Policies and goals 	10

Notes on Project Scoring

Points within each criterion should be seen as guides. Points should be given based on the best match and may be awarded in between increments as appropriate. Project receiving a negative score on any question should be further analyzed.

A - System Preservation and Modernization Scoring			
	Criterion	Factor	Points
1	Primary asset condition / effect on condition	Poor or failing / substantial improvement	15
		Fair / moderate improvement	8
		Good / minor improvement	4
		Excellent / no improvement	0
2	Enhancements to other assets (Projects elements included in the project, but not part of the primary project focus ie. Sidewalks with repaving project)	Poor or failing / substantial improvement	10
		Fair / moderate improvement	7
		Good / minor improvement	4
		Excellent / no improvement	0
3	Use of modern technology to improve efficiency and support ITS regional efforts (ie. continuous traffic counting equipment, adaptive signal control, emergency preemption systems)	Use of innovative technology and/or incorporation of traffic counting technology	10
		Improvement in technology to current best practices	7
		Maintain/repair existing technology	4
		Not applicable	0
			Total Score = up to 35
B - Mobility Scoring			
	Criterion	Factor	Points
1	Existing motorist congestion / effect on motorist congestion (Projects identified in Congestion Management Plan network are able to receive maximum points)	Location identified in the CMP network/ substantial improvement	4
		Significant existing / substantial improvement	3
		Significant existing / moderate or minor improvement	2
		Minimal existing / minor improvement	1
		No change	0
		Negative effect	-1
2	Effect on mobility / accommodation of non-motorists	Substantial improvement	3
		Moderate improvement	2
		Minimal improvement	1
		No effect for non-motorists	0
		Negative effect on mobility / accommodation	-1
3	Effect on connectivity / access (emphasis placed on key emergency and evacuation routes)	Substantial improvement to connectivity through the corridor	3
		Moderate improvement to connectivity	2
		Minimal effect on connectivity	1
		No effect on connectivity	0
		Negative effect on connectivity	-1
			Total Score = up to 10
C - Safety			
	Criterion	Factor	Points
1	Motorist crash history and anticipated safety impact (Note: Highway Safety Improvement Program (HSIP) eligible locations are determined by MassDOT and includes the 5% percent of locations in the region based on a severity weighted crash rate)	Location is HSIP eligible and project is anticipated to improve motorist safety	5
		Location has a demonstrated crash problem and project is anticipated to improve motorist safety	3
		No demonstrated crash problem, but project is anticipated to improve motorist safety	2
		No safety improvement anticipated	0
		The project may adversely affect motorist safety	-1
2	Non-motorist crash history and anticipated safety impact	Location identified as a HSIP Bicycle or Pedestrian Cluster and project is anticipated to improve non-motorist safety	5
		Location has a demonstrated safety deficiencies for non-motorists and project is anticipated to improve non-motorist safety	3
		Location has a demonstrated safety deficiencies for non-motorists and project is anticipated to improve non-motorist safety	2
		No safety improvement anticipated	0
		The project may adversely affect non-motorist safety	-1
			Total Score = up to 10

D - Economic Impact Scoring			
	Criterion	Factor	Points
1	Effect on access to or within a regionally-designated economic development area (ie. Economic Center, GIZ, etc.)	Substantial improvement	4
		Moderate improvement	3
		Minor improvement	1
		No effect	0
		Negative effect	-1
2	Effect on access to or within a locally-designated business district	Substantial improvement	3
		Moderate improvement	2
		Minor improvement	1
		No effect	0
		Negative effect	-1
3	Effect on connections between housing, job, cultural centers, and essential services within and beyond the region or effect on the freight network	Substantial improvement	3
		Moderate improvement	2
		Minor improvement	1
		No effect	0
		Negative effect	-1
			Total Score = up to 10

E - Environmental and Health Effects Scoring			
	Criterion	Factor	Points
1	Effect on wetlands, wildlife, or other resource protection	Anticipated improvement	2
		Minor contribution to preservation	1
		No anticipated impact or negative impacts adequately mitigated	0
		Negative impact	-1
2	Effect on water quality through stormwater management and treatment with an emphasis on for nitrogen (points for anticipated improvements may also be given for projects involving culvert widening)	Anticipated improvement in stormwater management and treatment	2
		Anticipated improvement in stormwater management	1
		No anticipated impact or negative impacts adequately mitigated	0
		Negative impact	-1
3	Effect on air quality / GHG emission	Significant, quantifiable decrease in GHG anticipated	2
		Minor, quantifiable or qualitative decrease in GHG anticipated	1
		No effect on GHG anticipated	0
		Anticipated increase in GHG	-1
4	Coastal Resiliency / Sea Level Rise Vulnerability (Vulnerable areas include those identified as a Special Flood Hazard Area (SFHA), areas identified by the Sea, Land, and Overland Surges from Hurricanes (SLOSH) model, or areas susceptible to sea level rise)	Project vulnerable area with resilient design	2
		Project in not in a vulnerable area but includes with resilient design elements	1
		Project not in vulnerable area and not special consideration given to resilient design	0
		Project in a vulnerable area and is not a resilient design	-1
5	Effect on cultural resources or open space	Anticipated improvement	1
		No anticipated impact or negative impacts adequately mitigated	0
		Negative impact	-1
6	Healthy Transportation Options	Increase in healthy transportation options	1
		No anticipated impact or negative impacts adequately mitigated	0
		Negative impact	-1
			Total Score = up to 10

F - Cost Effectiveness Scoring

	Criterion	Factor	Points
1	Project cost per user (Use cost/ADT/lane mile calculation as a general indicator, but flexibility is appropriate when considering unique project circumstances particularly for projects involving bicyclists and pedestrians. Low cost safety measures can be given full points.)	See reference table below, but consider unique circumstances	up to 15
		High cost project serving a small number of users	-1

Total Score = up to 15

		Notes	Value
Cost Estimate			
	ADT	For intersections, enter combined ADT of intersecting roads. For projects where ADT is unknown, use regional data to approximate.	
	Length (in miles)	For intersections, enter total length of all approaches within project limits.	
	Number of Lanes	Travel lanes only	
	Project Service Life	7, 14, or 21 years	

Reference

Cost/ADT/Lane Mile*	Points
<i>is less than \$50</i>	15
<i>is less than \$100</i>	12
<i>is less than \$200</i>	8
<i>is less than \$500</i>	4
<i>is less than \$1000</i>	0
<i>is more than \$1000</i>	-1

*Multiply by 2/3, 1, or 1.5 for service life of 7, 14, or 21 years, respectively

G - Policy Support Scoring

	Criterion	Factor	Points
1	Community support (as indicated through collective statements or actions of the highest elected officials in the effected communities)	Stated support of the project by the highest elected officials	3
		Actions by highest elected officials indicate general support of the project	2
		Neutral	0
		Collective opposition voiced by the highest elected officials	-1
2	Regional plans/policies (ie. RTP, Regional Policy Plan, CEDS)	Project specifically identified in Regional Plan	3
		Strongly supports Regional Plans/Policies	2
		Moderately supports Regional Plans/Policies	1
		Neutral	0
		Inconsistent with Regional Plans/Policies	-1
3	Local plans/policies(ie. LCP, local ordinances, bylaws, etc.)	Project specifically identified in Local Plan	2
		Consistent with Local Plans/Policies	1
		Neutral	0
		Inconsistent with Local Plans/Policies	-1
4	Project supports Federal or State (including MassDOT) policies and goals not accounted for in other criteria (GreenDOT, Healthy Transportation, Complete Streets, TZD etc.)	Project specifically identified in a existing Federal or State Plan	2
		Consistent with Federal or State Policies or Principles	1
		Neutral	0
		Inconsistent with Federal or State Policies or Principles	-1

Total Score = up to 10

Equity Analysis by Community

An equity analysis of projects included in the TIP as well as recently completed TIP projects was conducted. The maps at the end of this Appendix show the locations of these projects in relation to the 15 Cape Cod communities. The distribution of these funds are summarized in the following tables.

Table 12. Distribution of TIP Funds by Community

Community	2017-21	2017-21 Community Share	2007-16	2007-16 Community Share
Barnstable	\$14,123,314	20.7%	\$15,881,621	12.1%
Bourne	\$8,673,011	12.7%	\$19,137,040	14.6%
Brewster	\$3,567,500	5.2%	\$6,714,952	5.1%
Chatham	\$6,537,044	9.6%	\$15,298,631	11.6%
Dennis	\$5,597,012	8.2%	\$25,786,700	19.6%
Eastham	\$0	0.0%	\$0	0.0%
Falmouth	\$3,134,784	4.6%	\$16,544,013	12.6%
Harwich	\$3,402,518	5.0%	\$7,335,079	5.6%
Mashpee	\$9,647,462	14.1%	\$0	0.0%
Orleans	\$1,883,750	2.8%	\$5,216,312	4.0%
Provincetown	\$0	0.0%	\$2,500,000	1.9%
Sandwich	\$5,800,464	8.5%	\$7,724,417	5.9%
Truro	\$0	0.0%	\$350,000	0.3%
Wellfleet	\$2,320,464	3.4%	\$150,000	0.1%
Yarmouth	\$3,674,916	5.4%	\$8,867,815	6.7%
Regional	\$6,650,000	-	\$50,000	-
CCRTA	\$58,935,180	-	\$106,141,402	-
CCNS	-	-	\$860,100	-
Total	\$133,947,417	100.0%	\$238,558,081	100.0%

Notes: Where projects spanned multiple communities, project costs were distributed based on the approximate project length within each community.

Equity Analysis by Impacted Population

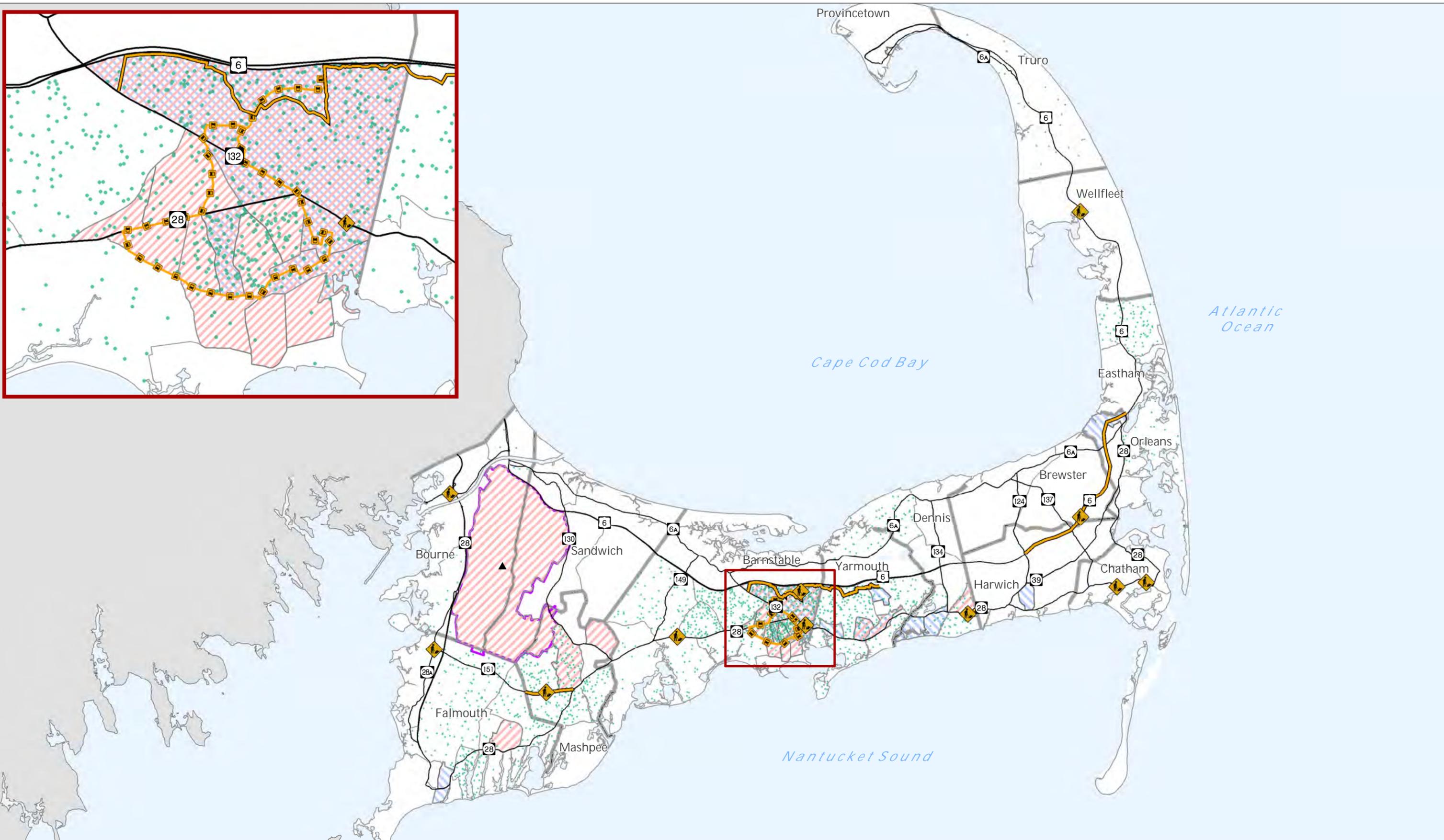
An equity analysis of projects included in the TIP was conducted with respect to anticipated impacts on minority, low income, and limited English proficiency populations. The maps at the end of this Appendix show the locations of these projects in relation to identified concentrations of these populations.

Overall, 80% of the FFY 2017-21 TIP funding is allocated to projects that will positively impact minority populations, 31% to projects that will positively impact low income populations, and 44% to projects that will positively impact limited English proficiency populations. These estimates exclude transit-funded projects. No projects are anticipated to negatively impact these identified populations. Specific projects and their anticipated impacts are presented in Table 13.

Table 13. Anticipated Impacts of TIP Projects on Minority (M), Low Income (I), and Limited English Proficiency (LEP) Populations

Project #	Year	Impacted Population	Anticipated Impact
Dennis, Rte 28 Corridor & Streetscape Improvements (#606707)	2017	I, M	Improved bicycle/ pedestrian access, safety
Bourne, Rte 6&28 Bypass Rd Resurfacing and Related Work (#608544)	2017	M	Improved pavement condition
Harwich, Improvements at Rte 124 Park and Ride (#608102)		I, M, LEP	Improved accommodation of transit users
Barnstable, CCRTA Hyannis Loop Demo (#CC1000)	2017-19	I, M, LEP	Improved transit connections
Har-Brew-Orl, Route 6 Resurfacing (#608201)	2017	I, M	Improved pavement condition
Barnstable, Rte 28 at Osterville-West Barnstable Rd (#607435)	2018	M, LEP	Improved bicycle/ pedestrian access, safety, traffic flow
Falmouth, Rte 28A at Rte 151 (#607444)	2018	M	Improved bicycle/ pedestrian access, safety, traffic flow
Yarmouth-Barnstable, Cape Cod Rail Trail Extension (#607398)	2018	I, M, LEP	Improved bicycle/ pedestrian access, safety
Barnstable, Rte 28 at Yarmouth Rd (#606272)	2019	I, M, LEP	Improved bicycle/ pedestrian access, safety, traffic flow
Bourne-Falmouth, Rte 28 Guide and Traffic Sign Replacements (#608571)	2019	M	Improved safety
Mashpee, Rte 151 (#607319)	2020/21	M, LEP	Improved bicycle/ pedestrian access, safety, traffic flow
Bourne, Belmont Circle Multi-modal Improvements (#606900)	2020	M	Improved bicycle/ pedestrian access, safety, traffic flow
Orleans, Rte 28 Stormwater Improvements (#608598)	2020	I	Improved safety
Sandwich, Shared Use Path on Service Rd (Rte 130 to Chase Rd) (#608422)	2021	M	Improved bicycle/ pedestrian access, safety
Harwich, Bridge Replacement - Azalea Dr over Herring River (#608617)	2021	I, M	Improved asset condition

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



Proposed 2017-2021 Transportation Improvement Program (TIP), Minority, Low Income and Limited English Proficiency Populations

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

Date: 6/15/2016
User: ptierny

-  Joint Base Cape Cod Boundary
-  Barnstable County Correctional Facility

Limited English Proficiency

-  Represents One (1) Portuguese or Portuguese Creole speaking person who speaks English less than very well (Points have been randomly located within the Census Tract represented)

Transportation Projects

-  TIP Specific Location Improvements
-  TIP Road Segment Improvements
-  TIP Transit Demonstration Project

Demographics

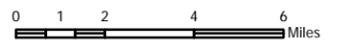
-  Minority
 -  Low Income
 -  Low Income & Minority
- Income: Median household income of census block is less than or equal to 60% Barnstable County median household income (\$59,500)
- Minority: 15% or more residents of census block self-identify as a race other than white

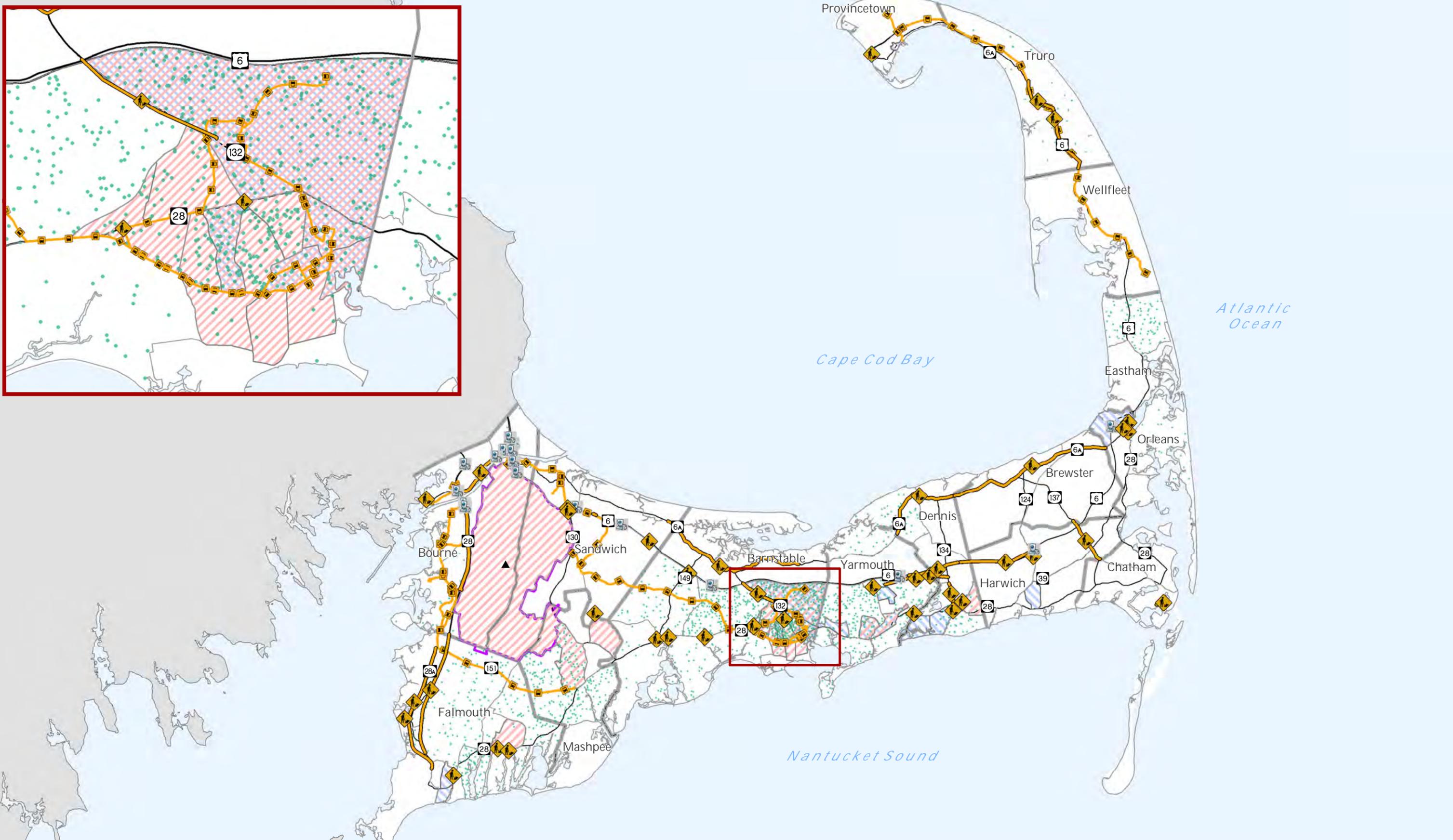
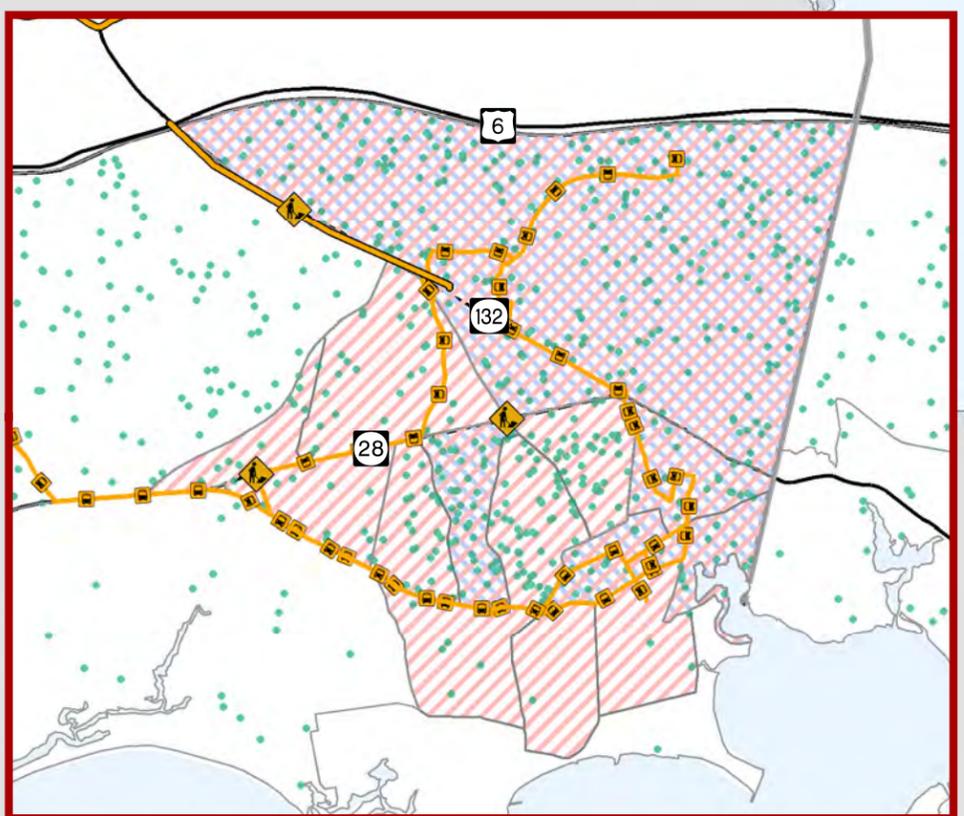
Barnstable County
Census Block Group Minority Population
Mean percent minority: 8.45%
Median percent minority: 6.39%

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









10 Years Review (2007-2016)
 Transportation Improvement Program (TIP),
 Minority, Low Income and Limited English
 Proficiency Populations

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

Date: 6/15/2016
 User: pTierney

Joint Base Cape Cod Boundary
 Barnstable County Correctional Facility

Limited English Proficiency
 Represents One (1) Portuguese or Portuguese Creole speaking person who speaks English less than very well (Points have been randomly located within the Census Tract represented)

Transportation Projects
 TIP Specific Location Improvements
 TIP Specific Location Traffic Monitoring
 TIP Road Segment Improvements
 TIP Transit Demonstration Project

Demographics
 Minority
 Low Income
 Low Income & Minority

Income: Median household income of census block is less than or equal to 60% Barnstable County median household income (\$59,500)
 Minority: 15% or more residents of census block self-identify as a race other than white

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

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



Appendix B: Air Quality Conformity and Greenhouse Gas Emissions

Air Quality Conformity Status

Since most all of Massachusetts (with limited exceptions) was designated on 5/21/12 by the United States Environmental Protection Agency as “unclassifiable/ attainment” for the latest ozone standard, a conformity determination for the Cape Cod Metropolitan Planning Organization (MPO) is not currently required. Further details and background information are provided below:

Air Quality Conformity Background

The 1990 Clean Air Act Amendments (CAAA) require metropolitan planning organizations within nonattainment and maintenance areas to perform air quality conformity determinations prior to the approval of Long-Range Transportation Plans (LRTPs) and Transportation Improvement Programs (TIPs), and at such other times as required by regulation. A nonattainment area is one that the U.S. Environmental Protection Agency (EPA) has designated as not meeting certain air quality standards. A maintenance area is a nonattainment area that now meets the standards and has been re-designated as maintaining the standard. A conformity determination is a demonstration that plans, programs, and projects are consistent with the State Implementation Plan (SIP) for attaining the air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

The entire Commonwealth of Massachusetts was previously classified as nonattainment for ozone, and was divided into two nonattainment areas. The Eastern Massachusetts ozone nonattainment area included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties. Berkshire, Franklin, Hampden, and Hampshire counties comprised the Western Massachusetts ozone nonattainment area. With these classifications, the 1990 Clean Air Act Amendments (CAAA) required the Commonwealth to reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO_x), the two major precursors to ozone formation to achieve attainment of the ozone standard.

Legislative and Regulatory Background

The 1970 Clean Air Act defined a one-hour national ambient air quality standard (NAAQS) for ground-level ozone. The 1990 CAAA further classified degrees of nonattainment of the one-hour standard based on the severity of the monitored levels of the pollutant. The entire commonwealth of Massachusetts was classified as being in serious nonattainment for the one-hour ozone standard, with a required attainment date

of 1999. The attainment date was later extended, first to 2003 and a second time to 2007.

In 1997, the EPA proposed a new, eight-hour ozone standard that replaced the one-hour standard, effective June 15, 2005. Scientific information had shown that ozone could affect human health at lower levels, and over longer exposure times than one hour. The new standard was challenged in court, and after a lengthy legal battle, the courts upheld it. It was finalized in June 2004. The eight-hour standard is 0.08 parts per million, averaged over eight hours and not to be exceeded more than once per year. Nonattainment areas were again further classified based on the severity of the eight-hour values. Massachusetts as a whole was classified as being in moderate nonattainment for the eight-hour standard, and was separated into two nonattainment areas—Eastern Massachusetts and Western Massachusetts.

In March 2008, EPA published revisions to the eight-hour ozone NAAQS establishing a level of 0.075 ppm, (March 27, 2008; 73 FR 16483). In 2009, EPA announced it would reconsider this standard because it fell outside of the range recommended by the Clean Air Scientific Advisory Committee. However, EPA did not take final action on the reconsideration so the standard would remain at 0.075 ppm.

After reviewing data from Massachusetts monitoring stations, EPA sent a letter on December 16, 2011 proposing that only Dukes County would be designated as nonattainment for the new proposed 0.075 ozone standard. Massachusetts concurred with these findings.

On May 21, 2012, (77 FR 30088), the final rule was published in the Federal Register, defining the 2008 NAAQS at 0.075 ppm, the standard that was promulgated in March 2008. A second rule published on May 21, 2012 (77 FR 30160), revoked the 1997 ozone NAAQS to occur one year after the July 20, 2012 effective date of the 2008 NAAQS.

Also on May 21, 2012, the air quality designations areas for the 2008 NAAQS were published in the Federal Register. In this Federal Register, the only area in Massachusetts that was designated as nonattainment is Dukes County. All other Massachusetts counties were classified as unclassifiable/attainment.

Therefore, conformity for ozone in the Cape Cod MPO region is required until July 20, 2013 for only the 1997 ozone standard.

Greenhouse Gas (GHG) Monitoring and Evaluation

This section summarizes the greenhouse gas (GHG) impacts that are anticipated to result from the projects that are included in this FFY 2017 - 2021 Transportation Improvement Program (TIP). It includes a summary of the state laws and policies that

call for reducing greenhouse gas in order to mitigate global climate change, actions that are being to respond to these state laws and policies, the role of regional planning and TIP development in reducing GHG emission and tracking these reductions, and the projected GHG emission impacts from the projects programmed in the TIP.

State Policy Context

The Global Warming Solutions Act (GWSA), which Governor Deval Patrick signed into law in August 2008, makes Massachusetts a leader in setting aggressive and enforceable GHG reduction targets, and implementing policies and initiatives to achieve these targets. In keeping with the law, on December 29, 2010 the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), in consultation with other state agencies and the public, released the Massachusetts Clean Energy and Climate Plan for 2020. This implementation plan establishes targets for overall, statewide GHG emissions:

- By 2020 25 percent reduction below statewide 1990 GHG emission levels
- By 2050 80 percent reduction below statewide 1990 GHG emission levels

GreenDOT Policy

The transportation sector is the single largest emitter of greenhouse gases, accounting for over a third of GHG emissions, and therefore the transportation sector is a key focus of the Clean Energy and Climate Plan. MassDOT's approach to supporting the implementation of the plan is set forth in its GreenDOT Policy Directive, a comprehensive sustainability initiative that sets three principal objectives:

- Reduce greenhouse gas (GHG) emissions. MassDOT will achieve this by taking GHG emissions into account in all of its responsibilities, from strategic planning to project design and construction and system operations.
- Promote the healthy transportation modes of walking, bicycling, and public transit. MassDOT will achieve this by pursuing multi-modal, "complete streets" design standards; providing choice in transportation services; and by working with MPOs and other partners to prioritize and program a balance of projects that serve drivers, pedestrians, bicyclists, and public transit riders.
- To support smart growth development. MassDOT will achieve this by working with MPOs and other partners to make transportation investments that enable denser, smart growth development patterns that support reduced GHG emissions.

GreenDOT Policy and Metropolitan Planning Organizations

The Commonwealth's thirteen metropolitan planning organizations (MPOs) are integrally involved in helping to achieve the GreenDOT goals and supporting the GHG reductions mandated under the GWSA. The MPOs are most directly involved in helping to achieve the GHG emissions reductions under the second goal - to promote healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments - and assist in the third goal by supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. This will be realized through the transportation goals and policies espoused in the Regional Transportation Plans (RTPs), the major projects planned in the RTPs, and the mix of new transportation projects that are programmed and implemented through the TIPs. The GHG tracking and evaluation processes enable the MPOs to identify the anticipated GHG impacts of the planned and programmed projects, and also to use GHG impacts as a criterion in prioritizing transportation projects.

Regional GHG Tracking and Evaluation in RTPs

MassDOT coordinated with MPOs and regional planning agency (RPA) staffs on the implementation of GHG tracking and evaluation in development of each MPO's 2035 RTPs, which were adopted in September 2011.

Working together, MassDOT and the MPOs have attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector. Using the Boston MPO's regional model and the statewide travel demand model for the remainder of the state, GHG emissions were projected for 2020 no-build and build conditions, and for 2035 no-build and build conditions.
- All of the MPOs included these GHG emission projections in their RTPs, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

Project-Level GHG Tracking and Evaluation In The Transportation Improvement Program

It is also important to monitor and evaluate the GHG impacts of the transportation projects that are programmed in the MPO Transportation Improvement Programs (TIP). The TIP includes both the larger, regionally-significant projects from the RTPs, which have already had their aggregate GHG impacts calculated and reported in the RTP, as well as smaller projects that are not included in the RTP but that may nevertheless have impacts on GHG emissions. The principal objective of this tracking is to enable the

MPOs to evaluate expected GHG impacts of different projects and to use this information as a criterion for prioritizing and programming projects in future TIPs.

In order to monitor and evaluate the GHG impacts of TIP projects, MassDOT and the MPOs have developed the following approach for identifying anticipated GHG impacts and quantifying GHG impacts of projects, when appropriate, through the TIP. Different types of projects will have different anticipated GHG emissions impacts. The different project categories are outlined on the next two pages with this region's project tracking sheet on the third page.

RTP Projects - Major capacity expansion projects (e.g. Green Line Extension, I-95 Whittier Bridge Replacement) would be expected to have a significant impact on GHG emissions. However, these projects are included in the RTPs and analyzed using the statewide model or Boston regional model, which would reflect their GHG impacts. Therefore, no independent TIP calculations are required.

- Quantified Decrease in Emissions - Projects that would be expected to produce a measurable decrease in emissions. The approach for calculating these impacts is described below. These projects should be categorized in the following manner:
- Quantified Decrease in Emissions from Traffic Operational Improvement - An intersection reconstruction or signalization project that is projected to reduce delay and congestion.
- Quantified Decrease in Emissions from Pedestrian and Bicycle Infrastructure - A shared-use path that would enable increased walking and biking and decreased vehicle-miles traveled (VMT).
- Quantified Decrease in Emissions from New/Additional Transit Service - A bus or shuttle service that would enable increased transit ridership and decreased VMT
- Quantified Decrease in Emissions from a Park and Ride Lot A park-and-ride lot that would enable increased transit ridership/ increased ridesharing and decreased VMT
- Quantified Decrease in Emissions from Bus Replacement - A bus replacement that would directly reduce GHG emissions generated by that bus service.
- Quantified Decrease in Emissions from Other Improvement
- Quantified Increase in Emissions - Projects that would be expected to produce a measurable increase in emissions.

The Office of Transportation Planning at MassDOT provided the spreadsheets that are used for determining Congestion Management and Air Quality Improvement (CMAQ) eligibility. These spreadsheets require the same inputs as the CMAQ calculations, and have been adapted to provide CO2 impacts. The data and analysis required for these

calculations is available from functional design reports that should be submitted for projects that would produce a measurable GHG impact.

No Assumed Impact/Negligible Impact on Emission - Projects that do not change the capacity or use of a facility (e.g. a resurfacing project that restores a roadway to its previous condition, or a bridge rehabilitation/replacement that restores the bridge to its previous condition) would be assumed to have no GHG impact.

Assumed Nominal Decrease in Emissions - Projects that would be expected to produce a minor decrease in emissions that cannot be calculated with any precision. Examples of such projects include roadway repaving or reconstruction projects that add a new sidewalk or new bike lanes. Such a project would enable increased travel by walking or bicycling, but there may be not data or analysis to support any projections of GHG impacts. These projects should be categorized in the following manner:

- Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure
- Assumed Nominal Decrease in Emissions from Bicycle Infrastructure
- Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure
- Assumed Nominal Decrease in Emissions from Intelligent Transportation Systems (ITS) and/or Traffic Operational Improvements
- Assumed Nominal Decrease in Emissions from Other Improvements
- Assumed Nominal Increase in Emissions - Projects that would be expected to produce a minor increase in emissions that cannot be calculated with any precision.

2017 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects						
► HSIP - Highway Safety Improvement Program						
606707	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	\$ 458,514	Quantified	3,512	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.
				Quantified Impact ►	3,512	
► CMAQ - Congestion Mitigation and Air Quality Improvement						
606707	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	\$ 4,945,462	Quantified	3,512	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.
CC2000	Cape Cod Bicycle Rack Program	\$ 100,000	Quantified	100,967	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
CC1000	BARNSTABLE - HYANNIS LOOP DEMONSTATION	\$ 685,464	Quantified	70,080	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	CMAQ -> FTA Transfer. Total programmed = \$659,100. Year 2 of 3. Score = 60.
				Quantified Impact ►	174,559	
► TAP - Transportation Alternatives Program						
606707	DENNIS- CORRIDOR AND STREETSCAPE IMPROVEMENTS ON MAIN STREET (ROUTE 28) FROM DENNIS COMMONS DRIVE TO UPPER COUNTY ROAD.	\$ 193,036	Quantified	3,512	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$5,597,012 = \$3,830,758 CMAQ + \$232,306 TAP. 25% design submitted. CMAQ analysis completed. RSA completed. Municipality is proponent. Score = 79.
				Quantified Impact ►	3,512	
► Non-CMAQ/HSIP/TAP (Other)						
608544	BOURNE- RESURFACING AND RELATED WORK ON ROUTE 6 & 28 BYPASS ROAD	\$ 2,400,000	Qualitative	0	Assumed Nominal Decrease in Emissions from Other Improvements	Total programmed = \$2,400,000. Score = 49.
608102	HARWICH- IMPROVEMENTS TO PARK AND RIDE FACILITY INCLUDING A NEW BUS SHELTER AT ROUTE 124 PARK AND RIDE	\$ 575,000	N/A	0	0	Total programmed = \$575,000. Score = 52.
				Quantified Impact ►	0	
► Section 1B / Federal Aid Bridge Projects						
► Statewide Systematic Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► On System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Off-System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Bridge Inspection Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects						
► Other Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects						
► Regional Major Infrastructure						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Americans with Disability Act Implementation Plan						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Congestion Mitigation and Air Quality						
0	No Projects Programmed	\$ -			N/A	

2017 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Description ▼	Project	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Statewide HSIP Program							
BRI17	BRIDGE INSPECTION		\$ 6,250,000		0	N/A	
Quantified Impact ►							
► Statewide Infrastructure Program							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide Interstate Maintenance Program							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide Intelligent Transportation Systems							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide National Freight Program							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide National Highway System Preservation Program							
					0		
Quantified Impact ►							
► Statewide Planning Program							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide Railroad Grade Crossings							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide Safe Routes to Schools Program							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Statewide Stormwater Retrofits							
					0		
Quantified Impact ►							
► Statewide Transportation Enhancements							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Other Statewide Items							
0	#N/A		\$ -			N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.		\$ -			N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs		\$ -			N/A	
0	Planning		\$ -			N/A	
0	Statewide Design and Right of Way		\$ -			N/A	
0	Statewide Recreational Trails		\$ -			N/A	
Quantified Impact ►							
► Section 2A / Non-Federal Projects							
► Non Federal Aid							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
► Section 2B / Non-Federal Bridge Projects							
► Section 2B / Non-Federal Bridge Projects							
0	No Projects Programmed		\$ -		0	N/A	
Quantified Impact ►							
2017 Cape Cod MPO GHG Tracking Summary							
					Total Quantified Impact ▼		
					0		
					181,584		
Quantified Impact ►							

2018 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects						
► HSIP - Highway Safety Improvement Program						
607444	FALMOUTH- INTERSECTION IMPROVEMENTS & RELATED WORK AT NORTH FALMOUTH HIGHWAY (ROUTE 28A),NATHAN ELLIS HIGHWAY (ROUTE 151) AND COUNTY ROAD	\$ 2,699,466	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 4% inflation applied = \$2,909,773 = \$210,307 TAP + \$2,699,466. 25% design under development. Possible HSIP - RSA to be conducted. Score = 63.
				Quantified Impact ►	0	
► CMAQ - Congestion Mitigation and Air Quality Improvement						
607435	BARNSTABLE-INTERSECTION IMPROVEMENTS @ FALMOUTH ROAD (ROUTE 28) & OSTERVILLE-WEST BARNSTABLE ROAD	\$ 2,404,331	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 4% Inflation applied = \$2,404,331. RSA conducted. 25% design plans submitted. Score = 65.
606596	CHATHAM- IMPROVEMENTS ON WEST MAIN STREET (ROUTE 28), FROM GEORGE RYDER ROAD TO BARN HILL ROAD	\$ 3,465,044	Quantified	175	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed with 4% inflation - 3,465,044. 75% design plans submitted. Score = 66.
CC2000	NA	\$ 100,000	Quantified	100,967	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
CC1000	BARNSTABLE - HYANNIS LOOP DEMONSTATION	\$ 711,828	Quantified	70,080	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	CMAQ -> FTA Transfer. Total programmed = \$659,100. Year 2 of 3. Score = 60.
				Quantified Impact ►	171,222	
► TAP - Transportation Alternatives Program						
607444	FALMOUTH- INTERSECTION IMPROVEMENTS & RELATED WORK AT NORTH FALMOUTH HIGHWAY (ROUTE 28A),NATHAN ELLIS HIGHWAY (ROUTE 151) AND COUNTY ROAD	\$ 210,307	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 4% inflation applied = \$2,909,773 = \$210,307 TAP + \$2,699,466. 25% design under development. Possible HSIP - RSA to be conducted. Score = 63.
				Quantified Impact ►	0	
► Non-CMAQ/HSIP/TAP (Other)						
0	No Projects Programmed	\$ -				
				Quantified Impact ►	0	
► Section 1B / Federal Aid Bridge Projects						
► Statewide Systematic Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► On System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Off-System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Bridge Inspection Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects						
► Other Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects						
► Regional Major Infrastructure						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Americans with Disability Act Implementation Plan						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Congestion Mitigation and Air Quality						
607398	FALMOUTH- BARNSTABLE- CAPE COD RAIL TRAIL EXTENSION, INCLUDES NEW BRIDGE OVER WILLOW STREET & RAILROAD (PHASE III)	\$ 7,349,831			N/A	
				Quantified Impact ►	0	
► Statewide HSIP Program						
0	No Projects Programmed	\$ -			N/A	

2018 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
				Quantified Impact ▶	0	
► Statewide Infrastructure Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Interstate Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Intelligent Transportation Systems						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide National Freight Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide National Highway System Preservation Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Planning Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Railroad Grade Crossings						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Safe Routes to Schools Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Stormwater Retrofits						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Statewide Transportation Enhancements						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Other Statewide Items						
0	#N/A	\$ -			N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.	\$ -			N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs	\$ -			N/A	
0	Planning	\$ -			N/A	
0	Statewide Design and Right of Way	\$ -			N/A	
0	Statewide Recreational Trails	\$ -			N/A	
				Quantified Impact ▶	0	
► Section 2A / Non-Federal Projects						
► Non Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
► Section 2B / Non-Federal Bridge Projects						
► Section 2B / Non-Federal Bridge Projects						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
				Total Quantified Impact ▼		
				Quantified Impact ▶	171,222	

2019 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects						
► HSIP - Highway Safety Improvement Program						
607397	WELLFLEET- INTERSECTION IMPROVEMENTS & RELATED WORK AT ROUTE 6 & MAIN STREET	\$ 2,127,428	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 8% inflation applied = \$2,320,464 = \$2,127,428 CMAQ + \$193,036 TAP. RSA conducted. Preliminary design. Municipality is proponent. Score = 82.
Quantified Impact ►				0		
► CMAQ - Congestion Mitigation and Air Quality Improvement						
606272	BARNSTABLE- INTERSECTION IMPROVEMENTS AT IYANOUGH ROAD (ROUTE 28) AND YARMOUTH ROAD	\$ 6,105,975	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 8% inflation = \$6,646,775 = \$6,105,975 CMAQ + \$540,800 Statewide CMAQ). 25% design submitted. HSIP - RSA performed; CMAQ Analysis to be performed. Score = 83.
CC2000	NA	\$ 100,000	Quantified	100,967	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
Quantified Impact ►				100,967		
► TAP - Transportation Alternatives Program						
607397	WELLFLEET- INTERSECTION IMPROVEMENTS & RELATED WORK AT ROUTE 6 & MAIN STREET	\$ 193,036	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 8% inflation applied = \$2,320,464 = \$2,127,428 CMAQ + \$193,036 TAP. RSA conducted. Preliminary design. Municipality is proponent. Score = 82.
Quantified Impact ►				0		
► Non-CMAQ/HSIP/TAP (Other)						
0	No Projects Programmed	\$ -				
Quantified Impact ►				0		
► Section 1B / Federal Aid Bridge Projects						
► Statewide Systematic Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► On System						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Off-System						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Statewide Bridge Inspection Program						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Section 1C / Federal Aid Non-Target Projects						
► Other Federal Aid						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Section 1D / Federal Aid Major & State Category Projects						
► Regional Major Infrastructure						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Statewide Americans with Disability Act Implementation Plan						
0	No Projects Programmed	\$ -			N/A	
Quantified Impact ►				0		
► Statewide Congestion Mitigation and Air Quality						
606272	BARNSTABLE- INTERSECTION IMPROVEMENTS AT IYANOUGH ROAD (ROUTE 28) AND YARMOUTH ROAD	\$ 540,800	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 8% inflation = \$6,646,775 = \$6,105,975 CMAQ + \$540,800 Statewide CMAQ). 25% design submitted. HSIP - RSA performed; CMAQ Analysis to be performed. Score = 83.
Quantified Impact ►				0		
► Statewide HSIP Program						
608571	TOURNE TO FALMOUTH - GUIDE AND TRAFFIC SIGN REPLACEMENT ON A SECTION OF ROUTE 28	\$ 450,021			N/A	
Quantified Impact ►				0		

2019 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Statewide Infrastructure Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Interstate Maintenance Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Intelligent Transportation Systems						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide National Freight Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide National Highway System Preservation Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Planning Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Railroad Grade Crossings						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Safe Routes to Schools Program						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Stormwater Retrofits						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Statewide Transportation Enhancements						
0	No Projects Programmed	\$ -		0	N/A	
				Quantified Impact ►		
► Other Statewide Items						
0	#N/A	\$ -			N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.	\$ -			N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs	\$ -			N/A	
0	Planning	\$ -			N/A	
0	Statewide Design and Right of Way	\$ -			N/A	
0	Statewide Recreational Trails	\$ -			N/A	
				Quantified Impact ►	0	
► Section 2A / Non-Federal Projects						
► Non Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 2B / Non-Federal Bridge Projects						
► Section 2B / Non-Federal Bridge Projects						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
2019 Cape Cod MPO GHG Tracking Summary			Total Quantified Impact ▼			
				Quantified Impact ►	100,967	

2020 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects						
► HSIP - Highway Safety Improvement Program						
607319	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	\$ 2,997,745	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
				Quantified Impact ►	0	
► CMAQ - Congestion Mitigation and Air Quality Improvement						
606900	BOURNE- TRAFFIC IMPROVEMENTS @ BELMONT CIRCLE AT ROUTES 6/25/28	\$ 6,048,000	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 12% inflation = \$6,048,000. Improvements focused primarily on bicycle and pedestrian accommodation improvements. To be designed by MassDOT. Score = 82.
CC2000	NA	\$ 100,000	Quantified	100,967	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
				Quantified Impact ►	100,967	
► TAP - Transportation Alternatives Program						
607319	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	\$ 242,367	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ +\$242,367 FFY2020 TAP + \$5,680275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
				Quantified Impact ►	0	
► Non-CMAQ/HSIP/TAP (Other)						
0	No Projects Programmed	\$ -				
				Quantified Impact ►	0	
► Section 1B / Federal Aid Bridge Projects						
► Statewide Systematic Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► On System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Off-System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Bridge Inspection Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects						
► Other Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects						
► Regional Major Infrastructure						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Americans with Disability Act Implementation Plan						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Congestion Mitigation and Air Quality						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide HSIP Program						
0	No Projects Programmed	\$ -			N/A	

2020 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
▶ Statewide Infrastructure Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Interstate Maintenance Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Intelligent Transportation Systems				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide National Freight Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide National Highway System Preservation Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Planning Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Railroad Grade Crossings				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Safe Routes to Schools Program				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Statewide Stormwater Retrofits				Quantified Impact ▶	0	
608598	ORLEANS - STORMWATER IMPROVEMENTS ALONG ROUTE 28	\$ 407,350			N/A	
▶ Statewide Transportation Enhancements				Quantified Impact ▶	0	
0	No Projects Programmed	\$ -			N/A	
▶ Other Statewide Items				Quantified Impact ▶	0	
0	#N/A	\$ -			N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.	\$ -			N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs	\$ -			N/A	
0	Planning	\$ -			N/A	
0	Statewide Design and Right of Way	\$ -			N/A	
0	Statewide Recreational Trails	\$ -			N/A	
				Quantified Impact ▶	0	
▶ Section 2A / Non-Federal Projects						
▶ Non Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
▶ Section 2B / Non-Federal Bridge Projects						
▶ Section 2B / Non-Federal Bridge Projects						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ▶	0	
2020 Cape Cod MPO GHG Tracking Summary			Total Quantified Impact ▼			
				Quantified Impact ▶	100,967	

2021 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects						
► HSIP - Highway Safety Improvement Program						
607319	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	\$ 5,680,275	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ + \$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
				Quantified Impact ►	0	
► CMAQ - Congestion Mitigation and Air Quality Improvement						
607405	CHATHAM- INTERSECTION IMPROVEMENTS & RELATED WORK AT MAIN STREET (ROUTE 28), DEPOT ROAD, QUEEN ANNE ROAD AND CROWELL ROAD	\$ 3,072,000	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	Total programmed with 16% inflation applied = \$3,072,000. CMAQ analysis to be completed. Municipality is proponent. . Score = 76.
CC2000	NA	\$ 100,000	Quantified	100,967	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Total programmed = \$100,000. Funds to be applied for by municipalities. Score = 52.
				Quantified Impact ►	100,967	
► TAP - Transportation Alternatives Program						
607319	MASHPEE- CORRIDOR IMPROVEMENTS & RELATED WORK ON NATHAN ELLIS HIGHWAY (ROUTE 151), FROM MASHPEE ROTARY TO FALMOUTH T.L.	\$ 319,725	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	ADVANCED CONSTRUCTION: Year 1 of 2. Total programmed with 12% inflation applied = \$9,240,112 = \$2,997,745 FFY2020 CMAQ + \$242,367 FFY2020 TAP + \$5,680,275 FFY2021 CMAQ + \$319,725 FFY2021 TAP. RSA conducted. CMAQ analysis to be completed. Municipality is the proponent. Score = 80.
				Quantified Impact ►	0	
► Non-CMAQ/HSIP/TAP (Other)						
0	No Projects Programmed	\$ -				
				Quantified Impact ►	0	
► Section 1B / Federal Aid Bridge Projects						
► Statewide Systematic Maintenance Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► On System						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Off-System						
608617	HARWICH - BRIDGE REPLACEMENT, H-10-019, AZALEA DRIVE OVER HERRING RIVER	\$ 1,043,768			N/A	
				Quantified Impact ►	0	
► Statewide Bridge Inspection Program						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects						
► Other Federal Aid						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects						
► Regional Major Infrastructure						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Americans with Disability Act Implementation Plan						
0	No Projects Programmed	\$ -			N/A	
				Quantified Impact ►	0	
► Statewide Congestion Mitigation and Air Quality						
608422	SANDWICH- CONSTRUCTION OF SHARED USE PATH ALONG SERVICE ROAD FROM ROUTE 130 TO CHASE ROAD	\$ 5,800,464			N/A	
				Quantified Impact ►	0	
► Statewide HSIP Program						

2021 Cape Cod MPO TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Infrastructure Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Interstate Maintenance Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Intelligent Transportation Systems						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide National Freight Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide National Highway System Preservation Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Planning Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Railroad Grade Crossings						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Safe Routes to Schools Program						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Stormwater Retrofits						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Statewide Transportation Enhancements						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Other Statewide Items						
0	#N/A	\$ -			N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.	\$ -			N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs	\$ -			N/A	
0	Planning	\$ -			N/A	
0	Statewide Design and Right of Way	\$ -			N/A	
0	Statewide Recreational Trails	\$ -			N/A	
Quantified Impact ▶						
► Section 2A / Non-Federal Projects						
► Non Federal Aid						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
► Section 2B / Non-Federal Bridge Projects						
► Section 2B / Non-Federal Bridge Projects						
0	No Projects Programmed	\$ -		0	N/A	
Quantified Impact ▶						
2021 Cape Cod MPO GHG Tracking Summary						
				Total Quantified Impact ▼		
				Quantified Impact ▶	100,967	

Cape Cod MPO Completed Highway Projects GHG

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼	Fiscal Year of Contract Award (2015 and forward) ▼
606394	BARNSTABLE- INTERSECTION IMPROVEMENTS AT FALMOUTH ROAD (ROUTE 28) AND BEARSES WAY	\$ 5,509,246	Qualitative		Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure		2015
CC2000	Cape Cod Bicycle Rack Program	\$ 50,000	Quantified	50483.7	Quantified Decrease in Emissions from Other Improvements		2016
607571	DENNIS- YARMOUTH- CONSTRUCTION OF A MULTI-USE PATH OVER THE BASS RIVER, INCLUDES NEW PEDESTRIAN BRIDGE D-07-007=Y-01-010	\$ 3,765,741	Quantified	3668.2	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure		2016
608349	TRURO- WELFLEET- BICYCLE ACCOMMODATION IMPROVEMENTS ON ROUTE 6	\$ 500,000	Qualitative		Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure		2016

2017 Cape Cod MPO Transportation Improvement Program

MassDOT/FTA Project ID ▼	MassDOT/FTA Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Total Cost ▼	Additional Information ▼	Fiscal Year of Contract Award (2015 and forward) ▼
CC1000	BARNSTABLE - HYANNIS LOOP DEMONSTATION (Year 2 of 3)	\$ 659,100	Quantified	70080.28	Quantified Decrease in Emissions from New/Additional Transit Service	\$ 659,100		2017

2018 Cape Cod Region MPO Transportation Improvement Program

MassDOT/FTA Project ID ▼	MassDOT/FTA Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Total Cost ▼	Additional Information ▼	Fiscal Year of Contract Award (2015 and forward) ▼
CC1000	BARNSTABLE - HYANNIS LOOP DEMONSTATION (Year 3 of 3)	\$ 711,282	Quantified	70080.28	Quantified Decrease in Emissions from New/Additional Transit Service	\$ 711,282		2018

Cape Cod MPO Completed Transit Projects GHG

FTA Activity Line Item ▼	Transit Agency ▼	Project Description ▼	Total Cost ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼	Fiscal Year Programmed (2015 and forward) ▼
		CCNS- NEW TRANSIT SERVICE DEMONSTRATION OUTER CAPE BIKE SHUTTLE	\$ 87,610	Quantified	62390.8	Quantified Decrease in Emissions from New/Additional Transit Service		2015
	CCRTA	BARNSTABLE - HYANNIS LOOP DEMONSTATION (Year 1 of 3)	\$ 659,100	Quantified	70080.28	Quantified Decrease in Emissions from New/Additional Transit Service		2016

Appendix C: Projects in Need of Funding

PROJECTS IN NEED OF FUNDING (For Information Only)

Estimated Cost

BARNSTABLE	Improved access for Hyannis Transportation Center	\$	5,000,000
BARNSTABLE	Rte 28 Resurfacing and Related Work	\$	2,875,000
BARNSTABLE	Route 132 at Route 6A	\$	2,000,000
BARNSTABLE BOURNE	Improvements to Real Time Traffic Information System -- Design Build of year-round 24/7 Web based traffic information system based on cameras, sensors, with 511 to reduce road rage, congestion, and improve mobility and incident management through improved information	\$	3,000,000
BARNSTABLE YARMOUTH	Hyannis Access Preferred Alternative including Airport Rotary improvements, grade separation of Route 28-Route 132 with tunnel / overpass direct connection, Rt 28/Yarmouth Rd intersection upgrade; reconstruction of sections of Yarmouth Road and Rt 28 to include additional 2 lanes of travel with median divider, sidewalk and multiuse paths	\$	90,000,000
BOURE FALMOUTH	Shining Sea Bike Path Extension	\$	8,000,000
BOURNE	Bourne Rotary Improvement Project	\$	50,000,000
BOURNE	Route 6 Scenic Highway Median Barrier	\$	12,000,000
BOURNE	Canal Area: Route 6 Exit 1C Reconfiguration	\$	10,000,000
BOURNE	Infrastructure Improvements (Platform, Parking, etc.) for Buzzards Bay Commuter Rail Service	\$	5,000,000
BOURNE	Route 6 / Route 28 Bypass --Memorial Circle to Belmont Circle (1.1 miles)	\$	2,000,000
BOURNE	Memorial Circle Intersection Improvement Project	\$	1,125,000
BOURNE PROVINCETOWN	Regional bicycle route from Cape Cod Canal to Provincetown		
BREWSTER	Full depth reclamation Long Pond Road / Rte. 137	\$	1,900,000
BREWSTER	Full depth reclamation Harwich Road / Rte. 124	\$	1,500,000
CAPE COD	Route 28 Multimodal Improvements: Various Locations	\$	20,000,000
CAPE COD	Cape Cod Rail Trail Expansion: S. Wellfleet to Provincetown	\$	20,000,000
Cape Cod Regional Transit Authority	Intercity Seasonal Connector-demonstration	\$	4,000,000
DENNIS	Route 28 Streetscape Improvements (Phase 2)	\$	4,500,000
EASTHAM	Route 6 Drainage (Aerie's Avenue to Nauset Road)	\$	1,500,000
EASTHAM	Route 6 and Governor Prence Road Improvements - Bicycle / Pedestrian	\$	1,000,000
HARWICH	Route 39 section, 2.0 miles from Oak Street to Queen Anne Road	\$	2,500,000
HARWICH	Route 39 section, 1.6 miles from Bay Road to Brewster TL	\$	2,000,000
ORLEANS	Rock Harbor Road drainage improvements and roadway reconstruction	\$	600,000
ORLEANS	Main Street Sidewalk extension and reconstruction of Meeting House Road intersection	\$	300,000
SANDWICH	Sandwich, Shared Use Path on Service Rd (Rte 130 to Chase Rd)	\$	5,000,000
STEAMSHIP AUTHORITY	Woods Hole Terminal Reconstruction Project	\$	61,750,000
STEAMSHIP AUTHORITY	M/V Martha's Vineyard Mid-Life Refurbishment Project	\$	10,000,000
STEAMSHIP AUTHORITY	Relocation of Administrative Offices	\$	6,600,000
WELLFLEET	Chequessett BR Rehabilitation	\$	12,000,000
YARMOUTH	Safety improvements at Route 6 ramps at Exit 8 (Union Street/Station Avenue).	\$	5,000,000
YARMOUTH	Rte 28 Resurfacing and Related Work	\$	4,000,000
YARMOUTH	Yarmouth, Sidewalk improvements: North Main Street sidewalk of approximately 1 mile connecting existing sidewalk with major recreation area	\$	650,000
	TOTAL	\$	355,800,000

Appendix D: Status of Previous TIP Projects

Cape Projects Advertised and Status

Cape Cod Transportation Improvement Program (TIP)

PROJIS or State Identification (SID) number	MUNICIPALITY of project location	DESCRIPTION	Low bid, award amount, or TIP Programmed Amount	FUND in TIP	Completed?	Project Proponent	Estimated cost, award amount, or Construction Contract Value	YEAR advertised (FFY)
56206	BOURNE	Bridge, Perry St, replacement/related BR# B-17-010	\$857,648	BR	11/30/94	town	\$857,648	1993
600326	DEN to ORL	Route 6, Install surface mount delineators	\$37,717	NFA	YES	state	\$37,717	1993
	Eastham, Wellfleet	Cape Cod Rail Trail (extension)	\$1,239,333	CMQ	9/30/94	DEM	\$1,239,333	1993
53355	FALMOUTH	Bridge, Menauhant Rd over Green Pond, BR#F-03-002	\$2,274,690	BR	12/1/96	town	\$2,274,690	1993
600485	HARWICH	Bridge #H-10-014, Rte 137 Br betterment over Rte 6	\$564,384	NFA BR	7/15/95	state	\$564,384	1993
600111	ORLEANS	Roof Replacment Orleans Depot, Bay Ridge La & 6, 6A	\$68,500	NFA	done?	state	\$68,500	1993
17400	SANDWICH	Bridge#S-04-02/Conrail, Old County Rd & Related	\$282,240	BR	7/29/96	town	\$282,240	1993
1993 ADVERTISING PROGRAM							TOTAL	\$5,324,512
600897	BARNSTABLE	Route 132 @ Bears Way Intersection	\$357,790	NFA	6/14/96	town	\$357,790	1994
600694	Barns, Bour, Sand	Route 6 Sign Update & Replacement	\$590,021	NFA	11/30/95	state	\$590,021	1994
600492	BOURNE	Rte 6@Bournedale & Nightingale Rds, sig & safety	\$662,568	NFA	7/31/98	state	\$662,568	1994
600728	Dennis, Yarmouth	Bridge Maint. Rte 6, Y-1-7,15,16, D-7-11	\$1,392,855	NFA	9/16/96	state	\$1,392,855	1994
600407	MASHPEE	Rte 151 Resurface & related	\$145,680	NFA	10/1/95	town	\$145,680	1994
1994 ADVERTISING PROGRAM							TOTAL	\$3,148,914
	BARNSTABLE	Route 6 rest area renovations	\$168,736	NFA	8/8/96	state	\$168,736	1995
601219	BARNSTABLE	SSA ferry terminal & marine facilities	\$4,568,000	FBD	7/9/97	SSA	\$4,568,000	1995
600564	HARWICH	Rte 124 @ Rte 6, Park & Ride Lot Construction	\$182,900	NFA	8/19/96	state	\$182,900	1995
601039	MASHPEE	Route 130 section, resurfacing & related	\$160,369	NFA	7/20/95	town	\$160,369	1995
1995 ADVERTISING PROGRAM							TOTAL	\$5,080,005
601396	BARNSTABLE	Route 28 Recons & Signals on a section	\$1,249,101	STP	11/30/99	town	\$1,278,140	1996
601194	Bourne / Plymouth	Route 25 EB to rest area, water service tie in	\$361,495	NFA	7/13/96	state	\$545,719	1996
601423	BOURNE	Buzzards Bay Train Station Improvements	\$149,747	STP-E	12/31/99	town	\$155,677	1996
601418	BOURNE	Monument Beach Train Station Improvements	\$28,698	STP-E	completed 1999	town	\$32,163	1996
601634	EASTHAM	Route 6 / Rogers Lane, drainage	readv 6/15/96	NFA	11/6/96	state	\$30,950	1996
601257	FALMOUTH	Route 151 @ Sandwich Rd	\$408,260	STP	7/5/97	town	\$499,676	1996
601690	FALMOUTH	Construct Shining Sea Bikeway, Phase II	\$299,974	NFA	7/12/97	town	\$273,399	1996
600402	FALMOUTH	Route 151 Section	\$1,524,864	STP	5/28/99	town	\$1,622,950	1996
601563	TRURO	Cons. Two Chemical Storage Sheds	\$200,000	NFA	?	state	\$199,850	1996
601084	YARMOUTH	Route 6 Bridges #'s: Y-1-5, 5a, 6, 12, 13, 14	\$986,000	NFA	1/14/98	state	\$986,332	1996
601859	YARMOUTH	Recons railroad grade crossing Willow St	\$375,222	NFA	7/30/97	state	\$269,298	1996
1996 ADVERTISING PROGRAM							TOTAL	\$5,894,154
601541	BARN-ORLEANS	Route 6 safety improvements, signs		NFA	complete 1997	state	\$659,265	1997
105701	BARNSTABLE	Route 28 section		NFA	11/30/98	state	\$4,168,495	1997
600969	EASTHAM	Bridge, Bridge Rd over Boat Meadow River #E-04-001		NFA	completed 1999	town	\$565,363	1997
601095	FALMOUTH	Bridge, Quaker Rd over Herring Brook #F-03-011	\$1,198,203	BR	complete may00	town	\$1,256,079	1997
600517	FALMOUTH	Pedestrian signal Rte 28 @ Falmouth Mall	\$54,738	NFA	11/1/97	town	\$51,920	1997
601465	HARWICH	Cons of Bike Path CCRT extension	\$698,302	NFA	8/22/98	town	\$674,451	1997
601883	MASHPEE	Great Neck Rd South section	\$667,492	NFA	complete	town	\$750,910	1997
601882	MASHPEE	Route 151 section		NFA	complete	town	\$344,993	1997
601706	MASHPEE	Route151 @ Old Barns Rd (signal)	\$279,706	NFA	complete 1999	town	\$315,539	1997
601849	SANDWICH	Route 6 Rest Area Site Improvements-WB			readvertised	state		1997
601849	SANDWICH	Route 6 Rest Area Site Improvements-WB			readvertised 98	state		1997
117808	SANDWICH	Route 6A, Tupper Rd to Chipman Rd	\$1,812,077	NFA	11/30/00	state	\$2,212,787	1997
601582	BARNSTABLE	Park & Ride lot expansion, Rte 6 at Rte 132	\$799,528	CMQ	8/29/98	state	\$931,620	1997
600795	YARMOUTH	Route 28 @ Forest Rd	\$539,380	NFA	??? deobligated	state		1997
1997 ADVERTISING PROGRAM							TOTAL	\$11,931,422
601801	BARNSTABLE	Barns, Route 132 Signal Coordination	\$249,305	NFA	9/26/98	town	\$290,000	1998
600966	BARNSTABLE	Bridge, Craigville Beach Rd over Centerville River #B-01-002	\$834,399	BR	6/1/02	town	\$906,759	1998
600967	Barns, Mashpee	Bridge, School St over Santuit River	See 2000 Adv	BR	re-advertised	town	see below	1998
601522	DENNIS	Setucket Rd (Old Bass River Rd to Rte 134)	\$657,694	STP	complete	town	\$706,960	1998
601849	SANDWICH	Route 6 Rest Area Site Improvements WB		NFA	?	state	\$150,914	1998
600970	FALMOUTH	CHURCH ST BR#F-03-014 (timber bridge replacement)	E. T. & L. Corp.	BR	5/27/00	town	\$1,170,899	1998
601966	BOURNE	Intersect Rte 6 and Nightingale Pond Dr & Scenic Dr	P.A. Landers	NFA	11/22/99	town	\$251,678	1998
1998 ADVERTISING PROGRAM							TOTAL	\$3,477,210
601422	BOURNE +	Head of the Bay Road, (also Plymouth and Wareham)		STP	advertised in 2000	town	see below	1999
1999 ADVERTISING PROGRAM							TOTAL	\$0
600967	Barns, Mashpee	Bridge, School St, Re-advertised May 2000 (orig 11/97)	\$698,584	BR	complete	town	\$698,584	2000
601422	BOURNE +	Head of the Bay Road, (also Plymouth and Wareham)	\$1,285,815	STP	complete	state	\$1,248,879	2000
601955	DENNIS	Route 6 @ Interchang 9 -- Route 134	\$2,165,316	NFA	complete	state	\$3,038,500	2000
601751	YARMOUTH	Buck Island and Town Brook Roads	\$1,389,680	STP	complete	town	\$1,665,000	2000
no projis	PROVINCETOWN	Shank Painter Property Acquisition - statewide Enhancements	\$247,000	STP-E	complete	town	\$247,000	2000
2000 ADVERTISING PROGRAM							TOTAL	\$6,897,963
	BOURNE	Academy Road Railroad crossing		NFA ?		state	\$247,507	2001
602309	HARWICH, CCRT	BRIDGE, Route 6/ Cape Cod Rail Trail, H-10-020	\$703,342	CMAQ	11/24/01	regional	\$703,342	2001
602293	HARWICH	BRIDGE, Lower County Road over the Herring River			-----	state	see below	2001
602293	HARWICH	BRIDGE, Lower County Road over the Herring River H-10-01	\$1,386,288	NFA	complete	state	\$1,386,288	2001
600756	HARWICH	BRIDGE, Route 6 over Depot Street H-10-016	\$1,895,284	NFA	complete	state	\$1,895,284	2001
601930	MASHPEE	Route 28 FalTL to Rotary, Shoulders & Sidewalk	\$959,370	STP	complete	state	\$959,370	2001
603304	ORLEANS, CCRT	BRIDGE, Route 6/ Cape Cod Rail Trail	\$2,754,491	CMAQ	complete	regional	\$2,350,000	2001
600392	SANDWICH	Route 130 Reconstruction & related	\$1,904,711	NFA		town	\$1,900,000	2001
2001 ADVERTISING PROGRAM							TOTAL	\$9,441,791
601466	CHATHAM	Bike Spur, from HarTL by airport then to downtown Chatham	\$1,438,041	CMAQ		town	\$1,800,000	2002
602842	Dennis Harwich	Route 28 overlay	\$1,509,535	NFA	complete	state	\$1,491,063	2002
602520	Eastham Wellfleet	Route 6, Traffic safety improvements	\$1,038,839	NFA	complete 2004	state	\$996,181	2002
602531	FALMOUTH	BRIDGE, Meadow Neck Rd over the Moonakis River #F-03-01	\$861,489	BR		town/state	\$861,489	2002
602562	ORLEANS	Main St, Rock Harbor Rd & Old Colony Rd	\$362,181	NFA		town	\$362,181	2002
2002 ADVERTISING PROGRAM							TOTAL	\$5,510,914
603427	BARNSTABLE	Route 6 Resurfacing and drainage improvements	\$4,000,000	STP	complete 2005	state	\$4,000,000	2003

Cape Projects Advertised and Status

Cape Cod Transportation Improvement Program (TIP)

PROJIS or State Identification (SID) number	MUNICIPALITY of project location	DESCRIPTION	Low bid, award amount, or TIP Programmed Amount	FUND in TIP	Completed?	Project Proponent	Estimated cost, award amount, or Construction Contract Value	YEAR advised (FFY)
602559	ORLEANS	Skaket Corners, Rte. 6A @ West Rd / Eldredge Park Way	\$730,000	NFA	complete 2006	town	\$962,000	2003
2003 ADVERTISING PROGRAM							TOTAL	\$4,962,000
603521	FALMOUTH	Shining Sea Bikeway Phase IIB, Skating Lane to Carlson Lane	\$672,000	CMAQ	7/2/05	town	\$423,450	2004
601916	BARNSTABLE	Bearse's Way, Route 28 northerly to Pitcher's Way	\$1,651,000	STP	complete	town	\$1,757,596	2004
603847	BOURNE	Sagamore Rotary Area Improvements Depot & temp P&R lot	\$5,000,000	STP	complete	state	\$3,475,470	2004
603847	BOURNE	Sagamore Rotary Chapter 149 fire station construction		STP	complete	state	\$4,065,000	2004
603847	BOURNE	Sagamore Rotary -- grade separation		STP	complete	state	\$36,336,000	2004
602326	YARMOUTH	Willow Street Recons (Rte 6 to relocated Higgins Crowell Rd)	\$2,652,000	STP	complete	town	\$2,652,000	2004
2004 ADVERTISING PROGRAM							TOTAL	\$48,709,516
601441	BARNSTABLE	Route 132 Boulevard	\$10,000,000	STP	complete	town	\$9,600,000	2005
603813	EASTHAM-ORLEANS	Route 6 Resurfacing and related	\$ 2,200,000	NFA	complete	state	\$2,200,000	2005
603349	FALMOUTH	WOODS HOLE BRIDGE	\$ 7,800,000	BR	complete	town	\$8,000,000	2005
2005 ADVERTISING PROGRAM							TOTAL	\$19,800,000
S117 earmark	BARNSTABLE	Hyannis Gateway / Main St. Lighting etc.		S117	complete	town	\$378,944	2006
604091	DENNIS	Swan River Road reconstruction	\$2,395,528	CMAQ	complete	town	\$2,300,000	2006
55400	FALMOUTH	Palmer Avenue BR		BR	warded-terminate	state	\$1,500,000	2006
603666	ORLEANS	Route 28 and Finlay Road intersection	\$645,524	STP	complete	town	\$590,000	2006
604335	SANDWICH	Route 130/Water St and Main St Intersection TOWN HALL SQ	\$546,657	STP	complete	town	\$600,000	2006
2006 ADVERTISING PROGRAM							TOTAL	\$5,368,944
603520	FALMOUTH	Shining Sea Bikeway Ph III	\$3,631,123	CMAQ	7/09 complete	town	\$4,000,000	2007
2007 ADVERTISING PROGRAM							TOTAL	\$4,000,000
603894	BOURNE	Rte. 6 Scenic Highway at Edgehill Road	\$4,935,910	STP	complete	town	\$3,948,728	2008
605037	DENNIS	Rte. 28 at Rte. 134 intersection improvements	\$843,000	CMAQ	complete	town	\$596,000	2008
604919	HARWICH	Rte. 124 at Queen Anne Road intersection improvements	\$1,200,000	CMAQ	complete	town	\$859,800	2008
CCNS	PROVINCETOWN	Rte. 6 at Province Lands Rd.	\$2,500,000	Parks	complete	NPS	\$2,500,000	2008
602923	YARMOUTH	Packet Landing site improvements	\$633,436	HPP	complete	town	\$633,436	2008
2008 ADVERTISING PROGRAM							TOTAL	\$8,537,964
604521	BARNSTABLE	Route 6A resurfacing	\$3,045,000	ARRA	complete	state	\$3,045,000	2009
604914	BARNSTABLE	Rte. 132 Boulevard Landscaping	\$1,500,000	STP-E	REJECTED - ReADV	town	\$0	2009
604914	BARNSTABLE	Rte. 132 Boulevard Landscaping	\$1,100,000	STP-E	complete	town	\$783,933	2009
604096	BARNSTABLE	Rte. 28 at 3 locations Rte. 149, So. County Rd., Lumbert Mill F	\$3,200,000	CMAQ	complete	town	\$3,200,000	2009
604224	BOURNE	Rte. 6 Scenic Highway resurfacing	\$1,651,519	ARRA	complete	state	\$1,651,519	2009
	CAPE SAFETY	Hwy Safety Improvement Program DESIGN (Sand. Cotuit Harl)	\$458,514	HSIP	complete	state	\$458,514	2009
605214	DENNIS	Route 6A resurfacing	\$1,680,620	ARRA	complete	state	\$1,680,620	2009
603494	FALMOUTH	BRIDGE Chapoquoit Road BR#F-03-009 over W. Falm Harbor	\$3,000,000	BR	Spring 2012	town / state	\$2,667,948	2009
603609	FALMOUTH	Route 28 Section known as "Reine's Corner"	\$2,000,000	STP	Spring 2011	state	\$1,237,500	2009
2009 ADVERTISING PROGRAM							TOTAL	\$14,725,034
604093	BARNSTABLE	Rte 149 at Rte 6 EB off-ramps, Roundabout construction	\$1,868,000	HSIP	completed	state	\$1,868,000	2010
604744	SANDWICH	Rte 130 at Rte 6 off-ramps, construct traffic signals & improv	\$2,434,000	STP	completed	state	\$1,521,000	2010
605943	BOURNE-SANDWICH	ITS - Camera & equipment installation at Sagamore & Bourne I	\$1,000,000	STP	completed	state	\$1,076,269	2010
	CCRTA	Vehicles, equipment & terminal improvements	\$635,322	ARRA FTA	transferred	state	\$635,322	2010
2010 ADVERTISING PROGRAM							TOTAL	\$5,100,591
604918	HARWICH	Route 137 Reconstruct & Improve QueenAnneRd to BrewTL	\$5,916,934	STP-U, CMAQ	completed	state	\$5,333,643	2011
606131	SANDWICH	Intersection Cotuit Rd at Harlow / So. Sand. Rd. roundabout	\$1,043,641	HSIP	completed	state	\$1,098,743	2011
606295	SANDWICH	Route 6 cable barrier installation	\$300,000	HSIP	completed	state	\$289,867	2011
605619	FALMOUTH	Route 28 Resurfacing & Related Work	\$5,686,424	NHS	completed	state	\$5,369,217	2011
2011 ADVERTISING PROGRAM							TOTAL	\$12,091,470
605243	YARMOUTH	Old Town House Rd at Forest Rd Intersection & Signal improv	\$1,221,000	HSIP	completed	town	\$1,221,000	2012
605375	DENNIS	Rte. 134 from Upper County Rd. to Rte. 28	\$4,390,504	CMAQ TE HSIF	completed	town	\$4,390,504	2012
605291	DENNIS	BR# D-007-001 UpperCountyRd, BR# D-07-006	\$10,964,561	BR	completed	state	\$10,964,561	2012
	CCRTA	New transit service Bourne-Sandwich	\$138,580	CMAQ	transferred	CCRTA	\$138,580	2012
	CCRTA	New transit service Bourne-Falmouth	\$137,540	CMAQ	transferred	CCRTA	\$137,540	2012
2012 ADVERTISING PROGRAM							TOTAL	\$16,852,185
602213	ORLEANS	Roundabout at Route 28 & Route 6a	\$1,331,245	CMAQ	complete	state	\$1,668,830	2013
605671	FALMOUTH	Rte 28 Improvements: Davisville/Old Mtghouse & Jones/Worce	\$3,308,075	CMAQ	underway	state	\$3,269,348	2013
607263	BARN-BOU-SAN	Changeable Message Boards/Cameras on Rtes 6, 25 and 28	\$1,500,000	STP	underway	state	\$1,301,769	2013
606286	BOURNE-SANDWICH	Rte 6 Resurfacing;Sagamore Bridge - Sandwich/Barnstable T.I	\$8,200,948	NHS	underway	state	\$8,061,702	2013
605792	CCNS	Various Pavement Management Projects	\$587,000	NHS	transferred	CCNS	\$587,000	2013
	CCRTA	New transit service Bourne-Sandwich	\$180,154	CMAQ	transferred	CCRTA	\$180,154	2013
	CCRTA	New transit service Bourne-Falmouth	\$178,803	CMAQ	transferred	CCRTA	\$178,803	2013
	CCRTA	Ouer Cape Bike Shuttle	\$101,250	CMAQ	transferred	CCNS	\$101,250	2013
2013 ADVERTISING PROGRAM							TOTAL	\$15,247,606
606178	BOURNE	Resurfacing and related work	\$7,389,353	NHPP/HSIP	underway	state	\$7,778,789	2014
604488	DENNIS-YARMOUTH	Cape Cod Rail Trail Extension	\$7,234,133	CMAQ	underway	towns	\$8,061,016	2014
603690	CHATHAM	Mitchell River Bridge Replacement	\$13,894,007	ABP-GANS	underway	state	\$15,298,631	2014
606016	BREWSTER	Route 6A resurfacing	\$5,861,202	STP	underway	state	\$6,714,952	2014
		Ouer Cape Bike Shuttle	\$84,240	CMAQ	transferred	CCNS	\$84,240	2014
2014 ADVERTISING PROGRAM							TOTAL	\$37,937,628

Cape Projects Advertised and Status

Cape Cod Transportation Improvement Program (TIP)

PROJIS or State Identification (SID) number	MUNICIPALITY of project location	DESCRIPTION	Low bid, award amount, or TIP Programmed Amount	FUND in TIP	Completed?	Project Proponent	Estimated cost, award amount, or Construction Contract Value	YEAR advertised (FFY)	
606394	BARNSTABLE	Route 28 at Bearses Way	\$5,509,246	TAP/STP/CM AQ/HSIP	advertised	state	\$5,509,246	2015	
606179	DENNIS-HARWICH	Route 6 resurfacing	\$2,429,099	STP	underway	state	\$2,283,272	2015	
		Ouer Cape Bike Shuttle	\$87,610	CMAQ	transferred	CCNS	\$87,610	2015	
2015 ADVERTISING PROGRAM							TOTAL	\$7,880,128	

TOTAL amount advertised or obligated \$257,919,950

Appendix E: Statewide Tables

Massachusetts Department of Transportation - Highway Division
 Summary of Operating and Maintenance Expenditures
 Cape Cod Region - Part 1: Non-Federal Aid
 as of May 20, 2016

Non Federal Aid Maintenance Projects - State Bondfunds

Program Group/Sub Group	Estimated SFY 2017 Expenditures	Estimated SFY 2018 Expenditures	Estimated SFY 2019 Expenditures	Estimated SFY 2020 Expenditures	Estimated SFY 2021 Expenditures
01 - Bridge Repair & Replacement					
New Bridge (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$0	\$0	\$0	\$0	\$0
Drawbridge Maintenance	\$0	\$0	\$0	\$0	\$0
Structures Maintenance	\$62,133	\$43,985	\$35,373	\$47,164	\$42,174
02 - Bridge Painting					
Painting - Structural	\$0	\$0	\$0	\$0	\$0
03 - Roadway Reconstruction					
Hwy Relocation (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Recon. - Added Capacity (Excluded)	n/a	n/a	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$2,295	\$3,060	\$4,079	\$3,145	\$3,428
Hwy Reconstr - No Added Capacity	\$0	\$0	\$0	\$0	\$0
Hwy Reconstr - Minor Widening	\$0	\$0	\$0	\$0	\$0
Hwy Reconstr - Major Widening	\$0	\$0	\$0	\$0	\$0
04 - Roadway Resurfacing					
Resurfacing	\$0	\$0	\$0	\$0	\$0
05 - Intersection & Safety					
Impact Attenuators	\$0	\$0	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0	\$0	\$0
Traffic Signals	\$4,968	\$6,625	\$3,864	\$5,152	\$5,214
06 - Signs & Lighting					
Electrical	\$0	\$0	\$0	\$0	\$0
Sign Installation / Upgrading	\$0	\$0	\$0	\$0	\$0
Structural Signing	\$0	\$0	\$0	\$0	\$0
07 - Guardrail					
Guard Rail and Fencing	\$0	\$0	\$0	\$0	\$0
08 - Maintenance					
Catch Basin Cleaning	\$0	\$0	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0	\$0	\$0
Landscaping	\$0	\$0	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0	\$0	\$0
Process/Recycle/Tmsprt Soils	\$0	\$0	\$0	\$0	\$0
Contract Hwy Maint.	\$0	\$0	\$0	\$0	\$0
09 - Facilities					
Chemical Storage Sheds	\$0	\$0	\$0	\$0	\$0
Vertical Construction	\$0	\$0	\$0	\$0	\$0
10 - Bikeways (Excluded)	n/a	n/a	n/a	n/a	n/a
11 - Other					
Demolition	\$0	\$0	\$0	\$0	\$0
Drilling & Boring	\$0	\$0	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0	\$0	\$0
Intelligent Transportation System	\$0	\$0	\$0	\$0	\$0
Marine Construction	\$0	\$0	\$0	\$0	\$0
Miscellaneous / No prequal	\$96,607	\$128,809	\$171,745	\$132,387	\$144,313
Reclamation	\$0	\$0	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
Grand Total NFA:	\$166,003	\$182,478	\$215,062	\$187,848	\$195,129

Massachusetts Department of Transportation - Highway Division
 Summary of Operating and Maintenance Expenditures
 Cape Cod Region - Part 2: Federal Aid
 as of May 20, 2016

Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2017 Expenditures	Estimated SFY 2018 Expenditures	Estimated SFY 2019 Expenditures	Estimated SFY 2020 Expenditures	Estimated SFY 2021 Expenditures
01 - Bridge Repair & Replacement					
New Bridge (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$0	\$0	\$0	\$0	\$0
Drawbridge Maintenance	\$0	\$0	\$0	\$0	\$0
Structures Maintenance	\$0	\$0	\$0	\$0	\$0
02 - Bridge Painting					
Painting - Structural	\$0	\$0	\$0	\$0	\$0
03 - Roadway Reconstruction					
Hwy Relocation (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Recon - Added Capacity (Excluded)	n/a	n/a	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$0	\$0	\$0	\$0	\$0
Hwy Reconstr - No Added Capacity	\$31,512	\$18,149	\$21,219	\$23,627	\$20,999
Hwy Reconstr - Minor Widening	\$757,910	\$333,074	\$387,851	\$492,945	\$404,623
Hwy Reconstr - Major Widening	\$0	\$0	\$0	\$0	\$0
04 - Roadway Resurfacing					
Resurfacing	\$4,587,896	\$4,117,215	\$4,407,294	\$4,370,802	\$4,298,437
05 - Intersection & Safety					
Impact Attenuators	\$0	\$0	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0	\$0	\$0
Traffic Signals	\$711,443	\$899,170	\$757,821	\$789,478	\$815,489
06 - Signs & Lighting					
Electrical	\$1,165	\$388	\$518	\$690	\$532
Sign Installation / Upgrading	\$0	\$0	\$0	\$0	\$0
Structural Signing	\$0	\$0	\$0	\$0	\$0
07 - Guardrail					
Guard Rail and Fencing	\$2,492	\$1,769	\$1,420	\$1,894	\$1,695
08 - Maintenance					
Catch Basin Cleaning	\$0	\$0	\$0	\$0	\$0
Contract Highway Maintenance	\$0	\$0	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0	\$0	\$0
Landscaping	\$13,192	\$6,064	\$8,085	\$9,114	\$7,755
Mowing and Spraying	\$0	\$0	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0	\$0	\$0
Process/Recycle/Transport Soils	\$0	\$0	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0	\$0	\$0
09 - Facilities					
Chemical Storage Sheds	\$0	\$0	\$0	\$0	\$0
Vertical Construction	\$0	\$0	\$0	\$0	\$0
10 - Bikeways (Excluded)	n/a	n/a	n/a	n/a	n/a
11 - Other					
Demolition	\$0	\$0	\$0	\$0	\$0
Drilling & Boring	\$0	\$0	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0	\$0	\$0
Intelligent Transportation System	\$416,504	\$195,335	\$220,066	\$277,301	\$230,901
Marine Construction	\$0	\$0	\$0	\$0	\$0
Miscellaneous / No prequal	\$0	\$0	\$0	\$0	\$0
Reclamation	\$0	\$0	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0
Grand Total Federal Aid:	\$6,522,113	\$5,571,165	\$5,804,276	\$5,965,851	\$5,780,431

Appendix F: Comments on Public Draft

The Cape Cod Metropolitan Planning Organization (MPO) will consider release of this Draft Transportation Improvement Program (TIP) for the public review/ comment period at their June 27, 2016 meeting, officially beginning the 30-day public comment period. The MPO is expected to consider endorsement of the Cape Cod FFY 2017-2021 TIP at their August 1, 2016 meeting at the Cape Cod Commission Office at 32250 Main Street (Route 6A) in Barnstable, MA 02630. Comments on this TIP may be sent by COB on July 27, 2016 via mail, hand delivered, by facsimile, or via e-mail, as follows:

Mailed or dropped off:

Cape Cod Commission Transportation Program

Glenn Cannon, Technical Services Director

3225 Main Street (Route 6A)

PO Box 226

Barnstable MA 02630-0226

Sent by facsimile to the attention of Glenn Cannon, Technical Services Director, CCC:
FAX: 508-362-3136

Electronic mail "email"—please put "TIP" in the subject line and send to:
gcannon@capecodcommission.org

Comments / Questions received on this TIP:

A Public Comment Summary Grid presenting a summary of the comments received during the 30-day public comment period will be included in the final version of this document. The comments will be presented in their entirety to the Cape Cod MPO during their August 1, 2016 meeting where the body will consider the comments.

Consideration of the comments is detailed in the meeting minutes for that meeting. The response and any action taken by the MPO are summarized in this table. Discussion of TIP project programming is also detailed in the meeting minutes from previous MPO and CCJTC meetings listed in Chapter 2 of this document.

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