

DRAFT

**CAPE COD COMMISSION
CAPE COD METROPOLITAN PLANNING ORGANIZATION**

**Unified Planning Work Program
for
Transportation Planning Activities**

October 1, 2010 - September 30, 2011

Metropolitan Planning Organization Members:

Jeffrey B. Mullan, Secretary and Chief Executive Officer, Massachusetts Department of
Transportation (MassDOT)
Luisa Paiewonsky, Administrator, Massachusetts Department of Transportation Highway Division
Ronald Bergstrom, Chair, Cape Cod Regional Transit Authority
John Harris, Cape Cod Commission
Frederick Chirigotis, President, Barnstable Town Council
William Doherty, Barnstable County Commissioners
Wayne Taylor, Mashpee Selectmen, for Bourne, Falmouth, Mashpee, Sandwich
Lawrence Cole, Harwich Selectman, for Brewster, Chatham, Dennis, Harwich, Yarmouth
Aimee Eckman, Selectman, Eastham Selectman, for Eastham, Orleans, Provincetown, Truro,
Wellfleet

Transportation Advisory Group:
Cape Cod Joint Transportation Committee
George Allaire, Chair

Expected Cape Cod Metropolitan Planning Organization Endorsement Date:

August 2010

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Cape Cod Metropolitan Planning Organization (MPO)

UNIFIED PLANNING WORK PROGRAM (UPWP)

October 1, 2010 through September 30, 2011

The signatures to follow certify that the Cape Cod Metropolitan Planning Organization (MPO), at their meeting on _____, 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 Unified Planning Work Program for Transportation Planning Activities for October 1, 2010 through September 30, 2011.

SIGNATORY CERTIFICATION:

Jeffrey B. Mullen, Secretary and Chief Executive Officer
Massachusetts Department of Transportation

Luisa Paiewonsky, Administrator
Massachusetts Department of Transportation,
Highway Division

John Harris
Cape Cod Commission

Ronald Bergstrom, Chair
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William Doherty
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Bourne, Falmouth, Mashpee, Sandwich

Lawrence Cole, Ph.D.
Brewster, Chatham, Dennis, Harwich, Yarmouth

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Eastham, Orleans, Provincetown, Truro, Wellfleet

Cape Cod Joint Transportation Committee Members

Robert A. Burgmann, PE	Barnstable
Rick Tellier	Bourne
Robert Bersin, PE	Brewster
Paul Lagg	Chatham
Joseph Rodricks, PE	Dennis
Neil Andres	Eastham
Marlene McCollem	Falmouth
Lincoln Hooper	Harwich
Catherine Laurent	Mashpee
Mark Budnick	Orleans
David Gardner	Provincetown
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Mark Vincent	Wellfleet
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Dr. Edward Gross	Bicycle Representative

Tom Cahir	Cape Cod Regional Transit Authority
Paul Maloney, P.E.	Federal Highway Administration
William Gordon, P.E.	Federal Transit Administration
Rachel Bain	Massachusetts Department of Transportation
Tim Kochan	MassDOT, Highway Division, District 5
Maggie Geist	Association to Preserve Cape Cod

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INTRODUCTION

This Unified Planning Work Program (UPWP) is developed annually by the Cape Cod Commission transportation staff on behalf of the Cape Cod Metropolitan Planning Organization, in accordance with the requirements in SAFETEA-LU and federal planning regulations. The UPWP describes all significant transportation planning activities planned on Cape Cod over the twelve (12) month period, regardless of lead organization and funding source. The following are the major transportation planning areas:

- 1) Management and Support of the Planning Process and Certification Activities - the efforts required for coordinating transportation planning activities between CCC and Metropolitan Planning Organization (MPO) member communities, local, regional, state and federal agencies; efforts required to maintain the public participation process; Environmental Justice strategies; efforts required for the administration of the CCC contract with the Massachusetts Department of Transportation (MassDOT); development and approval of the UPWP and the Transportation Improvement Program (TIP); and enhancement of the technical capacity of the planning process.
- 2) Data Collection & Analysis Activities - to continually gather and update traffic, crash and road data necessary for transportation planning and analysis; to maintain databases, to develop and update Cape Cod's travel demand forecasting model; review safety data, goals, objectives and strategies to promote safety.
- 3) Short and Long Range Transportation Planning - efforts to update and maintain the Regional Transportation Plan for Cape Cod, a certification activity that requires a new plan every four years and development of the Congestion Management Program for the region. Also includes efforts to perform special planning studies of corridor safety/traffic flow and transit and integration of special studies into the regional transportation plan. Emphasis areas include identification of strategies to support the economic vitality of the metropolitan area, transportation security, emergency planning, strategies to promote smart growth and economic development patterns, environmental protection and energy conservation and preservation of the existing transportation system.
- 4) Other technical activities - to provide other technical assistance to the region, including assistance in the design and implementation of projects, participating in special studies, coordination with transit agencies and assistance in the planning, design and development of the Intelligent Transportation System for Cape Cod. Special emphasis areas include enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight and promotion of Operation & Management Strategies.
- 5) Regulatory review and planning assistance to the Towns- Review of Developments of Regional Impact and assistance in the development and implementation of Local Comprehensive Plans and Districts of Critical Planning Concern.

Appendix - Efforts that are awaiting Grant funding that may be initiated during the UPWP period, including a more comprehensive study of the Canal area and several efforts proposed by the National Park Service.

Coordination with Federal Transportation Planning Factors

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

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

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to changes of delay and emissions. Reduction in traffic delay has a direct consequence on economic vitality both through the timely arrival of commuters and goods and reduction in fuel expenses and losses due to air pollution. The RTP directly supports these efforts through the goal: "Create a transportation system that reinforces local development, land use, economic, cultural, and historic preservation goals." The CCC directly supports regional productivity through its economic development mission (including full-time staff) manifested in the Regional Policy Plan and support of the Cape Cod Economic Development Council's initiatives, including support of the federally-approved Cape Cod Comprehensive Economic Development Strategy priority projects.

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

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to estimated changes in safety. The primary goal of the RTP is focused on safety and security: "Create a transportation system that provides safe travel options for people and freight, and protects users from natural and external threats." Safety is of such importance that it is recognized in its own chapter of the RTP.

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

The primary goal of the RTP is focused on safety and security: "Create a transportation system that provides safe travel options for people and freight, and protects users from natural and external threats." Security is of such importance that it is recognized in its own chapter of the RTP. One area of additional security planning that applies to Cape Cod is that of traffic impacts due to weather events such as impending hurricanes. CCC staff is continuing to participate in the Massachusetts Emergency Management Agency (MEMA) Massachusetts State Police efforts regarding the "Cape Cod Emergency Traffic Plan."

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

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to improvements in multimodal accessibility. The RTP supports these efforts through its goal: "Connect village centers, economic and employment centers, and points of

interest using multiple coordinated modes of transportation in a direct and efficient manner so that people and goods can get from where they are to where they are meant to go.”

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

The RTP supports this planning factor through three goals: “Create a transportation system that maintains, protects, and enhances the natural environment of Cape Cod;” “Create a transportation system that reinforces local development, land use, economic, cultural, and historic preservation goals;” and “Base projects and programs on an objective, transparent and inclusive decision-making process in cooperation with federal, state, regional, and local transportation agencies, government officials, businesses and citizens.”

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

The Cape Cod MPO staff shall apply specific criteria in the review of transportation strategies. These criteria are applied to improvements in multimodal accessibility. The RTP supports these efforts through its goal: “Connect village centers, economic and employment centers, and points of interest using multiple coordinated modes of transportation in a direct and efficient manner so that people and goods can get from where they are to where they are meant to go.”

7. Promote efficient system management and operation, and;

The RTP supports this planning factor through three goals: “Optimize travel time throughout the transportation system for people and freight by pursuing strategies to reduce congestion in areas where it exist and taking proactive measures to prevent congestion in currently free flowing areas;” “Preserve, maintain, and modernize the existing transportation system;” and “Base projects and programs on an objective, transparent and inclusive decision-making process in cooperation with federal, state, regional, and local transportation agencies, government officials, businesses and citizens.”

8. Emphasize the preservation of the existing transportation system

The RTP supports this planning factor through two goals: “Optimize travel time throughout the transportation system for people and freight by pursuing strategies to reduce congestion in areas where it exist and taking proactive measures to prevent congestion in currently free flowing areas” and “Preserve, maintain, and modernize the existing transportation system.” Through the CCC regulatory process, development projects are required to provide traffic mitigation. Additionally, a significant number of acres of developable land have been conserved through the CCC regulatory process – thereby reducing future transportation impacts.

TASK #1 - MANAGEMENT AND SUPPORT OF THE PLANNING PROCESS AND CERTIFICATION ACTIVITIES

Task 1.1 - Unified Planning Work Program (Certification Activity)

Objectives: To develop a Unified Planning Work Program (UPWP), in accordance with the requirements in SAFETEA-LU and federal planning regulations, and to obtain MPO endorsement of the UPWP. To prepare progress reports, as needed.

Previous Work: Previous UPWPs (most recent MPO endorsed UPWP: March 30, 2009)

Procedures: In conformance with applicable Federal and State guidelines, prepare a UPWP which describes all significant transportation and transportation-related planning activities anticipated to be carried out in the region during the period, regardless of funding sources or lead organization. Maintain the UPWP and make amendments as necessary.

Products: Unified Planning Work Program for Transportation Planning Activities for the period October 1, 2009 to September 30, 2010. Amendments to the current UPWP will be submitted as necessary. Monthly progress reports on PL activities performed under the UPWP and an annual report of transportation planning activities.

Schedule: Draft UPWP submitted to MPO & CCJTC July, 2010.
Final UPWP submitted to MPO August, 2010.
Monthly progress reports.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$17,500	6 person-weeks

Task 1.2 - Transportation Improvement Program (Certification activity)

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

Previous Work: "Cape Cod Transportation Improvement Programs (TIPs)", 1988 to present; latest endorsed (December 2009) document covers the period of federal fiscal years 2010-2013.

Procedures:

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

I - Preparation of the draft TIP

A) General

1. The TIP is a staged, multi-year, intermodal program of transportation projects which are consistent with the Regional Transportation Plan (RTP). It is the programming document to implement FHWA & Federal Transit Administration (FTA) Regional Transportation Plan projects.
2. Insure involvement of local officials and citizens through the Cape Cod Joint Transportation Committee and the Public Participation Plan.
3. Provide assistance to municipalities in advancing TIP projects.
4. Coordinate with MassDOT District 5, and the MassDOT Boston Office of Transportation Planning in developing project advancement.
5. Include project within financial estimates (and other items).

B) Development of the four year program of projects according to a uniform statewide format.

1. Update the list of transit and highway projects that are expected to require federal transportation funds during the active fiscal years of the TIP.
2. The list of projects may include information such as the following:
 - a. The official MassDOT identifying project title
 - b. Project description
 - c. Estimated total cost
 - d. Proposed sources of federal and non-federal funds.
3. The total costs of projects seeking federal funds in each program year shall be in line with anticipated federal and state funds.

C) Public Participation

- Per the MPO approved Public Participation Plan.

II - TIP Approval

The TIP documents will be reviewed and endorsed by the MPO. The endorsed products will serve as a portion of the required air quality consistency documentation necessary for USDOT (FHWA/FTA) and EPA conformity determinations.

III - Modification/Amendment

A) Amendments to the TIP require MPO approval.

B) Administrative adjustments to the TIP may be approved by the CCC Executive Director, with appropriate notification to the MPO.

Products:

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

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

Funding/Staffing breakdown:

Funding source	Amount	CCC Staffing
FHWA/MassDOT	\$47,500	15.5 person-weeks

Task 1.3 - CCJTC and MPO activities/Public Participation Program

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

Previous Work: Past maintenance of 3C process, including support to the CCJTC, the MPO and member agencies. Update of the Public Participation Plan (June 2007).

Procedures:

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

Products: Viable 3C process, including CCJTC and public participation program.
Revision of PPP, as necessary.
Website updates, notices to news media, meeting notices.
Transportation program annual report.
Minutes and reports on CCJTC meetings.
Letters, memoranda and notes as required.
Other products as required.

Schedule: Meetings typically held monthly.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$62,500	20.5 person-weeks

Task 1.4 - Environmental Justice

Objectives: To ensure that all segments of the population are able to fully participate in transportation planning processes and has access to transportation facilities. To integrate the basic principles of Environmental Justice into the 3C Transportation Planning Process, including Limited English Proficiency, as necessary. To develop and maintain a Title VI Civil Rights program for the Cape Cod MPO. To cooperate with stakeholders in the development of the Public Transit Human Services Transportation Plan. To engage the Wampanoag Tribe in transportation planning. To account for Environmental Justice efforts within each task as appropriate.

Previous Work: Attendance at preliminary meetings with MassDOT and FHWA to discuss environmental justice requirements and receive guidance on ensuring compliance. Preparation of updates to the Cape Cod Regional Transportation Plan including information and strategies to ensure Environmental Justice.

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

Products: Viable Title VI Civil Rights program for the Cape Cod MPO
Incorporation of environmental justice principles into MPO activities

Schedule: Ongoing procedures

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$5,000	1.5 person-weeks

Task 1.5 – Access to Jobs/Jobs Access Reverse Commute & New Freedom Programs

Objective:

To coordinate the Jobs Access Reverse Commute (JARC) and New Freedom (NF) Programs for the Cape Cod urbanized area. The JARC program instituted as part of the Welfare to Work program. The New Freedom program funds innovative measures to serve people with disabilities seeking reliable and safe transportation beyond Americans with Disabilities Act requirements.

Previous work:

Coordination with CCRTA, the Cape Organization for the Rights of the Disabled and other agencies with Access To Jobs and Welfare to Work programs.

Activities:

As the designated recipient for JARC and NF funds, the Cape Cod Commission shall see that the following are developed:

Identification of service gaps such as geographic restrictions and limited hours (JARC).
Identification of needs for enhanced assistance, extended hours and improved scheduling (NF).
Development of criteria for evaluating proposals to use JARC and NF funding,

Products:

Coordinated Plan.

Schedule:

Per MassDOT guidance and federal requirements.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$ 2,500	1 person-week
FTA/MassDOT	\$16,900	5.5 person-weeks

TASK #2 - DATA COLLECTION AND ANALYSIS ACTIVITIES

Task 2.1 - Cape Cod Traffic Data Collection Program

Objectives: To create and maintain databases of traffic counting data for Cape Cod to be used for transportation planning. To monitor growth in traffic volumes and to determine existing traffic volumes on Cape Cod roads. To perform the coverage counts for MHD. To perform bicycle and pedestrian activity counts in selected locations. To obtain data on road geometry, when necessary, as part of the traffic counting efforts.

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

Previous Work: Annual traffic counting programs, 1984-2010. Traffic counting reports & appendices (2009 versions most recently):

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

Procedures: For the summer of 2010, over 300 counts are scheduled across Cape Cod's 15 towns. Additional counts, in coordination with or at the request of the towns and MassDOT, will be taken as schedule and weather permits. Where possible, FHWA traffic monitoring guide procedures will be followed. Police details, if required for the additional count locations, shall be the responsibility of the towns for local roads and MassDOT for state roads and locations requested by MassDOT. Turning movement counts will also be taken at selected intersections. Bicycle and pedestrian counts will also be performed on selected paths throughout Cape Cod.

Where possible, FHWA traffic monitoring guide procedures will be followed. Work activities under this task include:

- Placement of counters
- Retrieval of counters
- Routine checks of counters
- Equipment inventory and maintenance
- Data tabulation
- Data factoring
- Data analysis/recording
- Coordination of counters
- Coordination of safety measures with towns
- Coordination of external program counts
- Periodic calibration/verification of equipment per MassDOT guidelines
- Obtain necessary permits from towns and MassDOT
- Development of traffic count file and data base

- Data mapping
- Program evaluation
- Computer data entry and maintenance
- Updated geometric information, as needed. Gather information to include sidewalks, shoulders and bicycle lanes.

Products:

- Cape Cod Traffic Counting Report for 2009. Report will contain information on study design, count location, date/time of peak hour volume, average daily traffic, and factored average daily traffic. The most recent 10 years of counts conducted by CCC will be included in this report.
- On-line Database that includes date of counts, general weather and traffic conditions average daily traffic, factored average daily traffic, peak hour traffic volume. Breakdown of traffic by hour over period studied kept on file. Information provided via a map-based search tool for ease of use by the public and other stakeholders.
- Factored counts for MassDOT.
- Expanded seasonal traffic counting data
- Turning movement counts at intersections, including bicycle and pedestrian counts.
- An analysis of traffic growth trends over the past 10 year period for Cape Cod, subregions and major routes.
- Counts accessible at website (www.gocapecod.org/counts).

Schedule:

Report on counts taken in 2009 submitted January 2010.

Office file updated continuously.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$65,000	21.5 person-weeks

Task 2.2 - Transportation Database Management/Modeling/Travel Demand Forecasting

Objectives:

To maintain and improve databases of Cape Cod transportation information including: roadway geometry, motor vehicle crashes, traffic volumes (motor vehicles, bicycles, pedestrian) and other. To provide the transportation information for Cape Cod to local and state officials, transportation professionals and the public. To review safety data, goals, objectives and strategies to promote safety. To continue to develop and calibrate computerized travel demand forecasting databases and models for Cape Cod, including year 2030 forecasts. To continue integration with Geographical Information Systems (GIS) data to provide a platform for GIS based traffic counts, congested link summaries, and accident summaries.

Previous Work:

- Draft VISSIM models for Harwich Center and Yarmouth Road/Willow Street (Barnstable).
- Geo-located Cape Cod crash database for 2004-2007.
- Online mapping of traffic counting data:
http://www.gocapecod.org/counts/googler/allcape_gm.htm
- Accident databases prepared with data supplied by MassDOT. Original database included detailed data for the years 1989-1991 and 1993 and less detailed information for the years 1991-2001. 2002-2006 Database includes new location reporting methods. Analyses included in the 1997, 2000 and 2003, 2007 and 2010 Cape Cod Regional Transportation Plans and other studies.
- Transportation model, developed in 1999/2000 for base year of 1997.
- Transportation model, updated in 2010.

Procedures:

Integrate new records when available; maintain database, develop subroutines for analysis. When details are needed for specific locations, town crash records may be obtained and reviewed. CCC staff will contact MassDOT to request latest crash records. Conduct public outreach to member communities. Respond to data and information requests from the public, transportation professionals and local, regional and state officials. Participate in analyses of and obtain latest Pictometry data and software.

Review and utilize available socio-economic, employment, population and housing data for base year and forecast year data. Utilize existing traffic volume and transit data to determine existing travel demands. Utilize existing transportation models for sub-regions of Cape Cod. Improve transfer methods of data between CCC Geographic Information Systems (GIS) services and transportation modeling effort. Expand transportation demand model to include Saturday morning element and to explicitly include alternate modes. Additional modeling efforts include the use of Synchro/Sim-Traffic software. Construction of Synchro models includes development of a computerized roadway/intersection network. Inputs include turning movements and roadway link traffic volumes, roadway and intersection geometry, and signal timing and phasing.

Products: Crash, roadway geometry, roadway traffic volumes, intersection turning movement data, and Pictometry information database. Generate a prioritized list of crash locations in the region. Reports, letters and memoranda as required. Updated regional transportation model based on latest available demographic information, reports of results, and summaries. Models will be used to support Task 3 and other regional planning and TIP activities.

Schedule: Ongoing. Crash database updated periodically with receipt of MassDOT crash records. Responsive to need for local data.

Funding/Staffing breakdown:

Funding Source	Amount	CCC staffing
MassDOT/FHWA	\$43,750	14.5 person-weeks

TASK #3 - SHORT AND LONG RANGE TRANSPORTATION PLANNING
FTA ITEM CODE 44.23.01

Task 3.1 – Regional Transportation Plan
(Certification activity)

Objectives: To maintain and update the Regional Transportation Plan for Cape Cod, in conformance with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and successor acts, consistent with the goals and requirements of the Cape Cod Commission, towns, the MassDOT, FTA and the FHWA, considering all modes of transportation and both short and long-range elements.

Previous work: Ten (10) year needs assessment prepared in October 1989.
Regional Policy Plan for Cape Cod, August, 1991.
Long Range Transportation Plan, September, 1993.
Long Range Transportation Plan Amendments, September 1994.
Regional Policy Plan for Cape Cod, November, 1996.
Regional Transportation Plan, approved by MPO March 1997.
Regional Transportation Plan, approved by MPO January 2001.
Regional Policy Plan for Cape Cod, April 2002.
Regional Transportation Plan, approved by MPO August 2003.
Regional Transportation Plan, approved by MPO March 2007.
Regional Policy Plan for Cape Cod, 2009
Ongoing Regional Transportation Plan, July 2010.

Procedures: Updates to Regional Transportation Plan (RTP). Expected amendment to RTP in 2010 to include recommendations from Hyannis Access Study and the Willow Street/Yarmouth Road Corridor Study. Includes RTP conformity analysis and reassessment of fiscal constraint. Ongoing public outreach will include a “Transportation/Environmental Workshop” to further involve Cape Cod environmental organizations and strengthen the link between transportation impacts and environmental analysis. Work with communities to identify Growth Incentive Zones and Economic Centers, promote mixed use development, transit-oriented development and identify appropriate transportation infrastructure to support these areas.

Products: Updates and amendments as necessary (e.g., amendment to include Hyannis Access Study recommendations). Presentation materials, maps, website downloads for Transportation/Environmental Workshop.

Schedule: To be determined.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
MassDOT/FHWA	\$37,835	12.5 person-weeks
FTA	\$20,000	6.5 person-weeks
CCC	\$ 5,000	1.5 person-weeks

Task 3.2 - Congestion Management Program/Congested Locations

Objectives: To improve the on-line system database for providing Congestion Management information, including intersection and roadway Level-of-Service, travel times and Park & Ride Usage. Also to perform location studies, as time and need allows. To develop criteria for identifying congestion and methods to address congestion, consistent with applicable regional, state, and federal transportation policies. To identify top congested locations for further study

Previous Work: Cape Cod Congestion Management System 1997 Report, January 21, 1998. Development of Congestion Management Program at www.gocapecod.org/congestion

Procedures: Data collection including specialized traffic counts, usage surveys, identification of locations for installation of monitoring stations, develop and refine procedures for defining congestion levels and locations. Identify 1 to 3 locations that are experiencing congestion and develop recommendations for potential improvement.

Products: Congestion Management Plan website for Cape Cod and associated data products; recommendations for improvements to specific congestion locations. To work toward including Level of Service (LOS) analysis on all federal-aid eligible roads.

Schedule:

Ongoing – to document congested facilities & levels of congestion

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MASSDOT	\$37,500	12.5 person-weeks

Task 3.3 – Canal Area Long Range Transportation Study

Objectives: To re-evaluate the Canal region in light of recent changes, including the Sagamore Flyover, advances in Buzzard's Bay development goals, and other actual and anticipated changes in transportation systems and land use patterns in the area. Review transportation studies in the Canal area and refine and implement a scope of work for a future transportation study. Long term goals include the identification of alternatives to improve transportation flow and safety in the Upper Cape including the analysis of bridge replacement or planning for a new bridge. All alternatives shall consider alternative modes of transportation including bicycle, pedestrian, bus and transit. Efforts to be conducted will be consistent with regional, state, and federal transportation policies.

Previous Work:

- Public meeting to identify additional stakeholders and identify areas of concern for residents of the canal area – on-going.
- The draft Canal Area Transportation Study prepared by Rizzo Associates, Inc. for MHD dated December 21, 1998, and the subsequent draft studies done by staff at the Cape Cod Commission, the most recent dated August 22, 2001.
- Route 3/Route 6 Sagamore Grade Separation Revised Environmental Assessment/Final Environmental Impact Report (EOEA #11731) dated October 31, 2003
- Bourne Scenic Highway Study and Canal Area Study – TransCAD Technical Assistance: Cape Cod Travel Demand Forecasting Model dated February 2000 – Louis Berger Group, Inc.
- EOEA Build-out Analysis for Cape Cod,
- Canal Area Traffic Study dated December 22, 2004 by the Massachusetts Highway Department.
- Buzzards Bay Village Comprehensive Transportation Plan study and recommendations

Procedures:

A study design has been developed and submitted for approval prior to the initiation of work and will be updated and revised. Elements of the study design will include the need for agency coordination regarding environmental mitigation and the need to utilize appropriate visualization techniques. Consultation will include officials and public from affected communities including Upper Cape towns.

With the completion of the Route 3/Route 6 interchange at Sagamore, new travel patterns are being established and can be evaluated with the assistance MassDOT for this state owned roadway segment (eliminating the need to estimate the short-term effects of the interchange).

The draft scope of work includes several subject areas not specifically addressed by the previous studies including:

- Freight
- Rail Service
- Emergency Services
- Intelligent Transportation Systems
- Alternative Transportation
- Bicycle Facilities
- Public Transportation
- Passenger Rail
- Canal Crossings
- Capacity
- Useful Life

Identify procedures for analyzing the impacts of the Sagamore Rotary Flyover project on traffic flow and patterns on the Canal area road system including Scenic Highway, Bourne Bridge, Sandwich Road in an effort to determine future improvement needs.

Meet with the U.S. Army Corps of Engineers representative to discuss shared planning goals.

Products:

- Summary report of existing studies.
- Development of data collection and additional study needs.
- Development of Scope of Work and budget for subsequent phases.
- Update travel demand model in Canal area.

Schedule:

To be determined in finalized study design.

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$40,000	13.25 person-weeks

Task 3.4 - Transportation Safety (Reporting/Coordination & Evaluation at 3 locations)

Objectives:

To evaluate safety improvements at three high crash locations identified in the 2010 Top Fifty Crash Locations on Cape Cod and the 2010 Cape Cod Regional Transportation Plan. Coordination with MassDOT's safety division and participation in MASSDOT Road Safety Audits.

Previous Work:

2006 safety evaluation studies at the Otis Rotary in Bourne, Route 137/39 intersection in Harwich and Route 6A/28 in Orleans, three high crash locations identified in 2003 Cape Cod Regional Transportation Plan. 2008 safety evaluation studies at Route 6/Brackett Road in Eastham and the two intersections on Route 130 in Sandwich formed by the Route 6 ramps at interchange 2. FY 2009 Safety Study includes the following locations: Route 6 Intersections at the Truro Central School, Orleans/Eastham Rotary, Route 6 at Shank Painter Road in Provincetown. The 2010 Top Fifty Crash Locations on Cape Cod provided analysis based on frequency, crash rate, EPDO and EPDO rate. Geo-located available crash data to the extent feasible. Conducted outreach to local and state police to improve crash data reporting

Procedures:

- Coordination with CCJTC and local agencies on specific locations
- Review of causal factors of crashes at each location.
- Review of roadway/intersection geometry.
- Identification of deficiencies and alternatives to improve safety.
- Review of local and state police reporting practices.
- Identification of ways to improve accuracy, consistency and timeliness of information
- Assistance in the implementation of improved practices.
- Consultation & coordination with appropriate agencies regarding environmental mitigation.
- Use of visualization techniques including GIS data layers showing land use and sensitive environmental areas.

Products:

Recommendations to improve safety at studied locations.

Schedule:

October-November 2010	Data Collection
December 2010-February 2011	Problem identification, development of improvements and analysis
March 2011	Recommendations and draft report
May 2011	Final report

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$45,000	14.75 person-weeks

Task 3.5 – Bicycle and Pedestrian Network Planning

Objective: To facilitate bicycling and walking as viable transportation modes within Barnstable County through development of regional networks and identification of key areas appropriate for new or improved facilities. To examine options for improving segments of, and access to and from, the Claire Saltonstall Bikeway and the development of new shared use paths.

Previous Work:

- Pedestrian and Bicycling sections of 2007 Regional Transportation Plan:
http://www.gocapecod.org/rtp/RTP2007docs/Ch2-4BikePed_fin.pdf
- Transit-accessible pathways on-line mapping project
<http://www.gocapecod.org/pathways>
- Technical support for town-based bicycle routing
- In 2009, updated MassGIS state-wide bicycle maps for the Cape Cod region;
- On-going work includes 2009 UPWP study of the Willow Street/Yarmouth Road Corridor that will include planning for the continuation of the Cape Cod Rail Trail from the Yarmouth town line south to the Hyannis Regional Transit Center.
- The Harwich Bike Planning 2010.
- A pedestrian/bicycle business enhancement for Sandwich Center.
- The Draft Cape Cod National Seashore Integrated Bicycle Plan, 2010

Procedures:

- Data collection including specialized traffic counts at existing multi-use facilities, usage surveys and efforts to identify origins/destinations of potential users.
- Coordination with local planning officials to identify inter-town bicycling connections and integration of local bicycle/pedestrian networks
- Use Google Earth/Google Maps and GIS data to develop on-line mapping of proposed routes

Products:

- Updates to Cape Cod Pathways network
- Mapping of proposed regional bike networks and publication of bicycling and walking path information. Where data is available, map roadways with adequate shoulder width to accommodate bicyclists.
- Recommendations to improve bicycle and pedestrians paths on Cape Cod.

Schedule:

Ongoing/continuously

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$54,500	17.5 person-weeks

Task 3.6 – Climate Change Initiatives

Objectives: The Cape Cod region was recently selected to be the subject of a federal Interagency Climate Change Scenario Planning Pilot Project. Staff will assist bringing together multiple federal agencies and local stakeholders to work toward a shared and practical future development strategy. The strategy will plan for climate change impacts in transportation and land use decision-making while at the same time reducing the region’s green house gas (GHG) emissions. A scenario planning process will be used to develop the most desirable development strategy. Commission staff participation in this project includes participation in monthly meetings and providing data, analysis, planning and technical reports, and maps to move the project forward.

Previous Work:

- Adoption of the 2009 Cape Cod Regional Policy Plan setting forth renewable energy standards for new non-residential development. See: <http://www.capecodcommission.org/RPP>
- Transportation, planning and GIS staff efforts to identify access to areas appropriate for development of land based wind generation facilities.
- Identify opportunities to meet Green Communities Act goals through local and regional initiatives.

Procedures:

To support 2009 Cape Cod Regional Policy Plan goals for Growth Incentive Zones and Economic Centers, and transportation-related standards to reduce GHG for re-development and new development. To continue transportation, planning and GIS staff efforts to identify access to areas appropriate for development of land based wind generation facilities and other renewable energy goals set forth in the Green Communities Act. To provide support to the Volpe Transportation Center for the Interagency Climate Change Scenario Planning project.

Products:

Develop an inventory of local and regional green house gas emissions and construct a system to quantify GHG reductions due to local and regional initiatives.

Schedule:

On-going through September 30, 2011.

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$6,250	2 person-weeks
CCC	\$12,111	3.5 person weeks

Task 3.7 – Follow Up on Previous Transportation Planning Studies

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

Previous work: Hyannis Access Study Implementation and 2010 Regional Transportation Plan

Products: Hyannis Access Study Implementation Final Report and Regional Transportation Plan Final Report.

Schedule: As Needed.

Funding/Staffing breakdown:

Funding Source	Amount	CCC Staffing
FHWA/MassDOT	\$30,000	10 person-weeks

TASK #4 - OTHER TECHNICAL ACTIVITIES
ITEM CODE 41.17.00

Task 4.1 - Intermodal Coordination, Intelligent Transportation Systems (ITS) & Travel Smart Initiatives

Objectives:

To promote the most efficient, cost effective and environmentally sound use of our transportation system, covering all modes of transportation. To advance the development of a Transportation Management Center on Cape Cod. To work with state agencies in the advancement of intelligent transportation system initiatives for Cape Cod, including further development of ITS for the region. To assist in the advancement of improved rail, bus and water transportation, including passengers and freight to/from and within the Cape Cod region. To enhance the integration and connectivity of the transportation system, across and between modes, for people and freight. To promote efficient system operation and management.

Previous Work:

- Assistance to the Cape Cod Transit Task Force and the Cape Cod Regional Transit Authority.
- Development and continued participation in the promotion of the Flex Route bus service for the Outer Cape.
- Marine Transportation Feasibility Study (1998).
- Intermodal and congestion management systems efforts.
- Assistance in ITS efforts on Cape Cod. Participation in Farradyne Systems study (1995).
- Transportation website "www.gocapecod.org."
- Assistance to the Cape Cod Chamber of Commerce with the development of the "Smart Guide."
- Development of the Five Year and Long Range Public Transportation Plans for Cape Cod.
- Development of the Public/Private Partners Program.
- ITS Existing Conditions Report, 2010.

Procedures:

- Assistance to the Cape Cod Transit Task Force and the Cape Cod Regional Transit Authority.
- Assistance to the Massachusetts Department of Transportation with the development of ITS for Cape Cod. Efforts to include outreach to stakeholders, attendance at meetings, review of documents and other assistance.
- Development of specific ITS criteria, goals and priorities consistent with the Cape Cod Regional Transportation Plan.
- Evaluation and integration of under-utilized sources of transportation information, including the Cape Cod Regional Transit Authority automated vehicle locator and the Route 132 closed loop signal system.
- Advancement of 511 Traveler Information System and other real-time transportation information systems.

- Support for MassRides' Initiatives

Products:

Evaluation of CCRTA transit routes; letters and memoranda as required; continued identification and development of congestion and intermodal management strategies; updated and expanded website of transportation information, reports and memoranda as required. Several possible products include:

- Traveler information via internet
- Promotion of transportation alternatives
- ITS plans for Cape Cod Canal Area, including real-time traveler information
- ITS plans for Hyannis area
- Summary reports of updates to CMS database
- Technical memoranda reporting analyses of travel patterns and traffic condition prediction methodology

methodology

- ITS coordination with other regions

Schedule:

Continuous throughout the year.

Funding/Staffing:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$23,750	8 person-weeks
FTA (5303)	\$48,471	16 person-weeks
CCC	\$12,118	4 person weeks

Task 4.2 - Other technical assistance requests

Objectives:

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

Previous Work:

Preparation of signal warrant analyses, review of local transportation improvement alternatives, preparation of local safety studies.

Wellfleet Fire station access/egress recommendations (2007).

West Chatham Route 28 Improvements (2008)

Procedures: As required.

Products:

Letters, reports, memoranda and analyses.

Schedule:

Continuous throughout the year.

Funding/Staffing:

Funding Source	Amount	CCC staffing
MassDOT/FHWA	\$45,500	15 person-weeks

Task 4.3 – Pavement Management

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

Previous Work:

- Eastham, Pilot Pavement Management Study, December, 1990
- Bourne, Preliminary Pavement Management Report, April 1992
- Participation on technical coordination committees for Pavement Management.
- Special Statewide pavement management systems effort, 1994.

Procedures: Existing conditions determination will be conducted through “windshield” surveys of roadways. Additional information may be provided by individual towns; some towns maintain pavement management data bases. Existing data will be requested from individual towns. The proposed pavement rating system will be determined in coordination with the towns.

Products: Assessment of pavement management needs.

Schedule: To be determined.

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
MassDOT/FHWA	\$22,500	7.5 person-weeks

TASK #5 - CAPE COD COMMISSION TRANSPORTATION PLANNING & REGULATORY ACTIVITIES

Task 5.1 - Review and Comment on Environmental Notification Forms, Environmental Impact Reports and Developments of Regional Impact

Objectives:

The primary purpose of the CCC regulatory program is mitigation of transportation impacts in a manner that is consistent with Barnstable County's Regional Policy Plan. To ensure proper review and analysis of traffic impacts of major residential and commercial developments throughout the region. To provide such information to the CCC, MassDOT, EOEA-MEPA Unit, town officials and other interested parties, as required. To recommend mitigation measures and work with interested parties in applying conditions to projects. To assist the Cape Cod Commission regulatory staff in the review of developments of regional impact. To assist the Massachusetts Highway Department/Public Private Development Unit (MassDOT - PPDU) in the implementation of mitigation strategies.

Previous Work:

Previous work includes analysis, review and comment on Environmental Notification Forms (ENFs), Environmental Impact Reports (EIRs) and Cape Cod Commission regulatory review.

Procedures:

- Review ENF, EIR, EIS, MIS and/or traffic analyses.
- Compute trip generation estimates.
- Review traffic counts on adjacent street network; conduct special traffic counts.
- Perform preliminary site visit.
- Compute LOS at site drive and area intersections, as necessary.
- Attend MEPA site visit, if applicable.
- Discuss project with interested parties.
- Identification of appropriate mitigation measures.
- Review mitigation measures for compliance and consistency with the Regional Policy Plan.
- Written and oral comments and testimony to the Cape Cod Commission, MassDOT District 5, MEPA, the towns and other interested organizations as required.
- Coordinate mitigation with MassDOT-PPDU.
- Products: Discussions with MEPA, MassDOT, project proponents and town officials. Provide written comments. Testimony at DRI and other meetings as required. Advancement of measures to mitigate traffic impacts. Analysis and recommendation on transportation improvements necessary to mitigate impacts.

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

Funding/Staffing: Support of this effort will be provided by the CCC. Below is the funding/staffing breakdown:

Funding Source	Amount	CCC Staffing
CCC	\$69,436	25 person-weeks

Task 5.2 - Assist Communities and the Region in the Development and Implementation of Local Comprehensive Plans (LCPs), Districts of Critical Planning Concern (DCPCs), and Economic Development in Designated Growth Centers

Objectives:

To provide technical assistance in the development and implementation of LCPs and DCPCs, Growth Incentive Zones, Economic Centers, village center planning, and other CCC funded transportation efforts.

Previous work:

Regional Policy Plan updates; past assistance in the development of LCPs in various Cape Cod towns.

Procedures:

Advisory and analytical assistance.

Products:

Testimony, letters, LCPs, DCPCs, and Technical Memoranda as required.

Schedule:

As established by the Cape Cod Commission and the Towns and legislated requirements.

Funding/staffing:

Funding Source	Amount	CCC Staffing
CCC	\$25,379	9 person-weeks

Task 5.3 - Other transportation activities

Objectives:

To perform other transportation activities and transportation program management.

Previous work:

Past transportation program management.

Procedures:

Flexible.

Products:

Viable transportation planning program.

Schedule: Continuous throughout the year.

Funding/Staffing:

Funding Source	Amount	CCC staffing
CCC	\$50,527	18 person-weeks

Appendix A - Additional Planning Efforts

The following projects are awaiting funding (primarily from grants) and are shown for information purposes. If these projects are awarded funding, these projects will be included in the UPWP as Tasks.

Appendix A.1 – Race Point/MacMillan Pier Bicycle Connection

Objectives:

Design and install striping, signage and minor drainage structural improvements along a bicycle route connecting the Cape Cod National Seashore bicycle trails with Provincetown MacMillan Pier.

Previous Work: Draft Integrated Bicycle Plan for Cape Cod, 2010

Procedures: Per CCNS Grant Application

Budget:

\$100,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.2 – ITS Parking Management System Implementation

Objectives:

This proposal will establish a parking management system that was developed in the current ITS implementation study.

Previous Work: ITS Implementation Study, 2010
Southeastern MA ITS Architecture Update, 2010

Procedures: Per CCNS Grant Application

Budget:

\$1,170,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.3 – Extension of the Cape Cod Rail Trail, Phase I

Objectives:

Evaluation of three (3) alternatives and development of the preferred alternative between Wellfleet and Truro

Previous Work: Draft Integrated Bicycle Plan for Cape Cod, 2010
Rail Trail Extension Study, 1988

Procedures: Per CCNS Grant Application
Develop Environmental permitting and twenty-five (25) percent design plans

Budget:
\$4,000,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.4 – Extension of the Cape Cod Rail Trail, Phase II

Objectives:

Permit and provide twenty-five (25) percent design for a multi-use path within the existing Route 6 Right of Way between Provincetown and Truro.

Previous Work: Draft Integrated Bicycle Plan for Cape Cod, 2010
Rail Trail Extension Study, 1988

Procedures: Per CCNS Grant Application

Route 6 adjacent to the Cape Cod National Seashore has a two lane cross-sections and then widens to four lanes. The two lane section constraints traffic such that the four lane cross section can be reduced to two lanes. The existing right of way would then be considered for a multi-use path.

Budget:
\$3,715,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.5 – Public and Private Transportation Partners Coordination – Phase II

Objectives:

This project will expand the vehicle tracking and coordination system developed in Phase one of this program.

Previous Work: Public and Private Transportation Partners Coordination – Phase 1
ITS Implementation Study, 2010

Southeastern MA ITS Architecture Update, 2010

Procedures: Per CCNS Grant Application

Budget:

\$525,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.6 – Cape Cod Rail Trail 501c3 Non Profit Alliance

Objectives:

To form a non-profit group to oversee stewardship of the present and completed Cape Cod Rail Trail.

Previous Work: Integrated Bicycle Plan for Cape Cod, 2010

Procedures: Per CCNS Grant Application

Budget:

\$200,000

Schedule: Work would be completed by September 30, 2011.

Appendix A.7 – Update 5-Year and Long Range Cape Cod Transportation Plans

Objective: To develop and implement a comprehensive transit plan for Cape Cod, considering year round and seasonal needs, including a 5 year plan and early implementation items for the Cape Cod Regional Transit Authority and the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority. To perform Intermodal Management Systems planning activities. Promotion of transportation alternatives through support, education and outreach, including coordination with the Cape Cod Chamber of Commerce and the Cape Cod Regional Transit Authority.

Previous work:

- License plate surveys conducted Spring and summer 1999.
Cape Cod Transit Summit - February, 2000.
- Development of early implementation items, including:
- Relax and Ride – a shuttle service between the Rte. 128 MBTA//Amtrak station and the ferry facilities in Woods Hole;

- Sunday bus service on the SeaLine, Villager and H2O regular bus routes that extend from Falmouth to Orleans, including much of Barnstable;
- Three more round trips during the morning, mid afternoon and late-day rush hour on the SeaLine, between Falmouth and Hyannis;
- Villager bus service every 20 minutes on a route that runs from the west end of Hyannis through Main Street, the waterfront district, then along Route 132 to Cape Cod Community College and Barnstable Village;
- A new Villager II bus route through some East End neighborhoods of Hyannis to the shopping malls along Rte. 132;
- More frequent bus service to Barnstable Municipal Airport;
- • Additional H2O Line bus service along Rte. 28 between Hyannis and Orleans, including a new late afternoon run and more trips to Dennisport and Patriot Square in So. Dennis.
- 2002 Five-Year Public Transportation Plan

Procedures: Hold public informational and stakeholders meeting (as necessary) to update the existing Public Transportation Plan

Products: Updated Public Transportation Plan for Cape Cod.

Schedule: To be determined.

Funding/Staffing:

Funding source	Amount	CCC staffing
	\$100,000	33 person-weeks

Appendix A.8 – Canal Area Long Range Transportation Study

Objectives: To evaluate either bridge replacement or a new bridge over the Cape Cod Canal and all supporting infrastructure. This effort would include existing and future land use analysis. Review transportation studies in the Canal area and refine and implement a scope of work for a future transportation study. Long term goals include the identification of alternatives to improve transportation flow and safety in the Upper Cape including the analysis of bridge replacement or planning for a new bridge. All alternatives shall consider alternative modes of transportation including bicycle, pedestrian, bus and transit. Efforts to be conducted will be consistent with regional, state, and federal transportation policies.

Previous Work:

- Public meeting to identify additional stakeholders and identify areas of concern for residents of the canal area – on-going.
- The draft Canal Area Transportation Study prepared by Rizzo Associates, Inc. for MHD dated December 21, 1998, and the subsequent draft studies done by staff at the Cape Cod Commission, the most recent dated August 22, 2001.

- Route 3/Route 6 Sagamore Grade Separation Revised Environmental Assessment/Final Environmental Impact Report (EOEA #11731) dated October 31, 2003
- Bourne Scenic Highway Study and Canal Area Study – TransCAD Technical Assistance: Cape Cod Travel Demand Forecasting Model dated February 2000 – Louis Berger Group, Inc.
- EOEA Build-out Analysis for Cape Cod,
- Canal Area Traffic Study dated December 22, 2004 by the Massachusetts Highway Department.
- Buzzards Bay Village Comprehensive Transportation Plan study and recommendations

Procedures:

A study design has been developed and submitted for approval prior to the initiation of work and will be updated and revised. Elements of the study design will include the need for agency coordination regarding environmental mitigation and the need to utilize appropriate visualization techniques. Consultation will include officials and public from affected communities including Upper Cape towns.

With the completion of the Route 3/Route 6 interchange at Sagamore, new travel patterns are being established and can be evaluated with the assistance MassDOT for this state owned roadway segment (eliminating the need to estimate the short-term effects of the interchange).

The draft scope of work includes several subject areas not specifically addressed by the previous studies including:

- Freight
- Rail Service
- Emergency Services
- Intelligent Transportation Systems
- Alternative Transportation
- Bicycle Facilities
- Public Transportation
- Passenger Rail
- Canal Crossings
- Capacity
- Useful Life

Identify procedures for analyzing the impacts of the Sagamore Rotary Flyover project on traffic flow and patterns on the Canal area road system including Scenic Highway, Bourne Bridge, Sandwich Road in an effort to determine future improvement needs.

Meet with the U.S. Army Corps of Engineers representative to discuss shared planning goals.

Products:

- Summary report of existing studies.
- Development of data collection and additional study needs.
- Development of Scope of Work and budget for subsequent phases.
- Update travel demand model in Canal area.

Schedule:

To be determined in finalized study design.

Funding/Staffing breakdown:

Funding source	Amount	CCC staffing
	\$1,000,000	330 person-weeks

METROPOLITAN PLANNING (PL) FUNDING DISTRIBUTION

Federal Fiscal 2011 SPR and PL Formula Allocation

based on revised MARPA formula

10 apportionment
\$8,507,425

<u>MPO (PL-Funded)</u>		<u>%</u>	<u>10 apportionment at 90% OA</u>	<u>FHWA Funds</u>	<u>NFA Funds</u>	<u>TOTAL FFY2011</u>
Berkshire	YR 3	0.04928403	\$377,352	\$377,352	\$94,335	\$471,687
Boston (CTPS) (MAPC)	YR 1	0.34335865	\$2,129,487	\$2,129,487	\$532,372	\$2,661,859
	YR 1		\$499,500	\$499,500	\$124,577	\$624,387
Cape Cod	YR 3	0.06128872	\$489,268	\$489,268	\$117,317	\$606,585
Central Mass.	YR 4	0.08719251	\$687,605	\$687,605	\$166,901	\$854,506
Merrimack Valley	YR 3	0.07114080	\$541,703	\$541,703	\$136,176	\$677,879
Montachusett	YR 4	0.06890205	\$451,001	\$451,001	\$112,750	\$563,751
Northern Middlesex	YR 3	0.06759006	\$517,439	\$517,439	\$129,360	\$646,799
Old Colony	YR 4	0.07044230	\$539,354	\$539,354	\$134,839	\$674,193
Pioneer Valley	YR 3	0.09451633	\$724,447	\$724,447	\$181,112	\$905,559
Southeastern Mass.	YR 4	0.09818295	\$736,517	\$736,517	\$184,129	\$920,646
TOTAL		1.00000000	\$7,656,682	\$7,656,682	\$1,914,771	\$9,571,863
RFAs (SPR-Funded) reduced by 3.22% over 2010						
Franklin	YR 3	0.0394375	\$381,656	\$381,656	\$95,414	\$477,070
Martha's Vineyard	YR 3	0.0281140	\$218,845	\$218,845	\$54,711	\$273,556
Nantucket	YR 2	0.0392550	\$185,155	\$185,155	\$46,530	\$231,685
TOTAL			\$795,656	\$795,656	\$196,654	\$992,320
TOTAL (PL and SPR funded)			\$8,443,339	\$8,443,339	\$2,110,835	\$10,554,173

The recommended PL Allocation Formula as developed by the Massachusetts Association of Regional Planning Agencies and recommended by the Executive Office of Transportation is based upon the following three factors. These factors result in the percentages shown.

- 40% of available funds are equally divided among the 10 MPOs.
- 30% is allocated based upon each MPO's relative share of Urbanized Population.
- 30% is allocated based upon each MPO's relative share of Total Population.

All figures are based upon the 2000 Census.

LIST OF SIGNIFICANT PLANNING STUDIES and OTHER GRANTS

Significant regional transportation planning efforts:

By the Cape Cod Commission:

Yarmouth Road/Willow Street (Barnstable) Corridor Study	2009
Route 6A Corridor Management Plan Update	2009
2009 Transportation Safety Report	2009
Congestion Management Program	Continuous
Environmental Justice (e.g., "Workrides," online translations, videos, etc.)	Continuous
Cape Cod implementation of MBTA "Charlie Card" in coordination with Boston MPO for commuter bus passes	Continuous
2008 Transportation Safety Report	May 2009
Cape Cod Unified Planning Work Program amendment for 2009	March 2009
Cape Cod Traffic Counting Program 2008 Annual Report	February 2009
Cape Cod TIP Amendment Year 2009 January 2009	February 2009
2009 Regional Policy Plan	January 2009
Cape Cod Transportation Data Collection Guide	November 2008
"Transportation and the Environment" Cape Cod Regional Transportation Plan Workshop	October 2008
Cape Cod TIP Amendment FY2007-2010	June 2008
Cape Cod Traffic Counting Program 2007 Annual Report	January 2008
Cape Cod TIP Adjustment FY2007-2010	August 2007
Cape Cod Unified Planning Work Program for FY2008	July 2007
Cape Cod TIP Amendment FY2007-2010	June 2007
Cape Cod Traffic Counting Program 2006 Annual Report	April 2007
2006 Transportation Safety Report	December 2006
Cape Cod Unified Planning Work Program for FY2007	August 2006
Cape Cod Transportation Improvement Program FY2007-2010	August 2006
Cape Cod TIP Amendment (FY2006-2010)	March 2006
Route 28 Safety & Traffic Flow Study	January 2006
Provincetown – Howland and Bradford Street Intersection Study	November 2005
Cape Cod Traffic Counting Program 2005 Annual Report	November 2008
Cape Cod Unified Planning Work Program for FY2006	August 2005
Cape Cod Transportation Improvement Program FY2006-2010	July 2005
Cape Cod Transportation Improvement Program Amendment FY2005-2009	May 2005
Cape Cod Transportation Improvement Program Amendment FY2005-2009	April 2005
Cape Cod Unified Planning Work Program for FY05 Amendment	February 2005
Cape Cod Traffic Counting Program 2004 Annual Report	November 2004
Cape Cod Unified Planning Work Program for FY05	August 2004
Cape Cod Transportation Improvement Program FY2005-2009	July 2004
Cape Cod Transportation Improvement Program Amendment FY2004-2008	June 2004
Cape Cod Transportation Improvement Program Amendment FY2004-2008	March 2004
Route 6 Safety & Traffic Study (Eastham, Wellfleet, Truro, Provincetown)	March 2004
Cape Cod Transit Support Facilities Design Prototypes (Cape Cod Commission and National Park Service)	February 2004
Cape Cod Traffic Counting Program 2003 Annual Report	December 2003
2003 Cape Cod MPO Regional Transportation Plan	August 2003
Cape Cod Unified Planning Work Program for FY04	August 2003
Cape Cod Transportation Improvement Program FY2004-2008	August 2003
Cape Cod Transportation Improvement Program Amendment	June 2003
Falmouth Steamship Authority Traffic Study (final draft)	February 2003
Cape Cod Traffic Counting Program 2002 Annual Report	December 2002
Cape Cod Unified Planning Work Program for FY03	August 2002

Cape Cod Transportation Improvement Program FY2003-2007	August 2002
Cape Cod Park & Ride Study	June 2002
Five-Year Public Transportation Plan (by CCC and the CC Transit Task Force)	June 2002
2002 Regional Policy Plan	April 2002
Marston Mills Recreational Fields Traffic Study	November 2001
Provincetown Bike Route Study	December 2000
Bicycle Safety Study – Provincetown	April 2000
A Strategic Plan for Expanded Cape Cod Ferry Service	Jan. 2000
Harwich Route 39/137 Planning Study	May 1999
Conwell Street Corridor Safety Study	May 1999
BL-2 Internal Road Transportation Benefits & Detriments (Sandwich)	November 1998
Massachusetts Military Reservation Master Plan	September 1998
Cape Cod Marine Transportation Feasibility Study	June 1998
Veterans Memorial Elementary School (Provincetown) Pedestrian Safety Study	May 1998
Route 28 & 132 Traffic Circulation Study – Barnstable	August 1992
Route 28 Traffic Circulation Study – Yarmouth to Orleans	March 1992
Route 28 Traffic Circulation Study – Mashpee	December 1989
Route 28/MacArthur Blvd Traffic Study – Bourne	April 1989
10 Year Needs Assessment – Summary List	October 1989
Route 6 – Alternatives – Dennis to Orleans	October 1986

Environmental Impact Reports and Traffic Impact Studies (by others)

The Villages at Barnstable, Barnstable, Traffic Impact and Access Study	May 2009
F.W. Webb, Barnstable, Traffic Impact and Access Study	February 2009
Wise Living at Woods hole, Falmouth, Traffic Impact Technical Memorandum	June 2008
Provincetown Municipal Airport commission, Traffic Operation Report and Parking Analysis	March 2008
Teledyne/Benthos, Falmouth, Traffic Impact Study	September 2007
Daniels Recycling Company, Orleans, Traffic Impact and Access Study	July 2007
Canalside Commons 40B, Bourne, Traffic Impact Memorandum	July 2007
Forest Cove 40B, Falmouth, Traffic Impact Study	April 2007
Blanchard Liquors, Barnstable, Traffic Impact Technical Memorandum	March 2007
Parkers River Marine Park, Yarmouth, Traffic Study	October 2006
CVS, Yarmouth, Traffic Impact letter	June 2006
Independent Living Facility, Falmouth, Traffic Impact Technical Memorandum	April 2006
Orleans Toyota – O'Connor Road Traffic Impact Letter	April 2006
CCRTA Fare Study – Final Report (Draft)	March 2006
Strategic Plan for the Development of Flex Service	March 2006
Dunkin Donuts, Dennis, Traffic Impact Letter	March 2006
International Fund for Animal Welfare Transportation Report, Yarmouth	March 2006
Electronics Superstore, Hyannis, Traffic Impact Technical Memorandum	March 2006
Walgreen Pharmacy, Traffic Impact & Assessment Study, Yarmouth	February 2006
Cape Cod Cooperative Bank, Barnstable, Traffic Impact Technical Memo	December 2005
Mashpee Industrial Park, Traffic Impact Letter	November 2005
Mashpee Commons, Traffic Impact & Access Study	November 2005
Macmillan Pier Transportation Center Feasibility Study – Final Draft Report	January 2006
CVS, Bourne – Traffic Impact Technical Memorandum	October 2005
Cape End Manor, Traffic Impact Letter, Provincetown	September 2005
Canal Bluffs 40B, Bourne, Traffic Impact Letter	September 2005
Spring Bars Road 40B, Falmouth, Traffic Impact and Access Study	September 2005
Falmouth Housing Corporation, Traffic Impact and Access Study	September 2005
Bayside Seafood and Market, Brewster, Traffic Impact Assessment	August 2005
Dowcett Subdivision, Yarmouth, Traffic Impact Assessment	August 2005
Spring Bars Road 40B, Falmouth, Traffic Impact Assessment	July 2005
Bourne Elementary School, ENF	June 2005

Office Building, Hyannis, Traffic Impact Assessment	May 2005
Summerwoods 40B, Traffic Impact Letter, Harwich	April 2005
Integrated Solid Waste Mgt Facility, Bourne, Traffic Impact Assessment	January 2005
Riverview School, Sandwich, Traffic Impact Assessment	January 2005
Canal Place 40B, Bourne, Traffic Impact Report	January 2005
Orleans Shaw's (Traffic Impact & Access Study)	November 2004
Annie's Pasture 40B, Traffic Impact Assessment, Sandwich	November 2004
Eastham Town Beach Traffic Impact Assessment	September 2004
Lookout Ridge Subdivision, Traffic Impact Assessment, Sandwich	September 2004
Sandwich Shaw's (Traffic Impact & Access Study)	August 2004
Barnstable Airport Improvement Project, Hyannis, MA (Final EIR/Final EA)	May 2004
Proposed Cape Cod Hospital Expansion	March 2004
CanalSide Commons Development Traffic Impact and Access Study	March 2004
North Bay Partners Traffic Study – Barnstable	March 2004
Schooner Village 40B, Traffic Impact Assessment, Barnstable	January 2004
Sagamore Rotary Grade Separation (Revised EA/Final EIR)	October 2003
South Cape Village Supplemental EIR	October 2003
Alternative Transportation Facility Design Prototypes Workbook	September 2003
Sagamore Rotary Transportation Improvements Project (Environmental Assessment and draft EIR)	June 2003
Mashpee Place (final EIR)	May 2003
Wendy's Restaurant, Yarmouth, Traffic Impact & Access Study	June 2003
Cape Cod National Seashore Alternative Transportation Systems Long Range Planning Study	May 2003
Augat Self Storage Transportation Impact Assessment, Mashpee	March 2003
Harwich Commons Expansion, Traffic Impact & Access Study	March 2003
Dunkin Donuts, Traffic Study, Brewster	February 2003
Wellfleet Harbor Actors Theater (Traffic Impact & Access Study)	December 2002
Pleasant Bay Assisted Living, Traffic Study – Brewster	November 2002
Wise Living 40B, Traffic Impact & Access Study, Orleans	November 2002
Cape Cod Hospital Proposed Hadaway Road Ambulatory Campus	October 2002
Falmouth Hospital Expansion Traffic Impact Study	October 2002
Independence Medical Arts Traffic Impact Letter – Barnstable	October 2002
Sandwich Shaw's (Traffic Impact & Access Study)	August 2002
Mashpee Shaw's (Traffic Impact & Access Study)	August 2002
Rt 28 Mobil Gas Traffic Impact Letter – Yarmouth	July 2002
Truro Stop & Shop (draft EIR)	May 2002
Orleans Shaw's (Traffic Impact & Access Study)	January 2002
Long Pond Medical Traffic Impact Letter – Harwich	September 2001
Atlantis Supermarket (ENF)	September 2001
Harwich Shaw's (Traffic Impact and Access Study)	April and July 2001
Anchor Self Storage, Sight Distance & Trip Generation Analysis, Mashpee	May-June 2001
Flagship Self Storage, Traffic Assessment, Mashpee	May 2001
BJ's Wholesale Club	April 2001
Cotuit Landing – Barnstable (final)	November 2000
CanalSide Commons – Bourne (final)	October 2000
Brewster Farms Country Market, Traffic Report, Brewster	August 2000
CanalSide Commons – Bourne (supplemental draft)	May 2000
Mashpee Commons – Mashpee (draft)	March 2000
South Cape Factory Outlet – Mashpee (final)	February 2000
Route 3 – South Weymouth to Bourne – Corridor Needs Analysis	May 1999
Silver Square Traffic Impact Assessment – Bourne	April 1999
South Cape Factory Outlet – Mashpee (draft)	April 1999
CanalSide Commons – Bourne (draft)	Feb. 1999
Route 6 – Transportation Improvements Project Dennis to Orleans (draft)	October 1994

Feasibility/Conceptual Planning Studies (by others)

Hyannis Access Study

Sagamore Rotary Grade Separation Study

Conceptual Design & Feasibility Study

for a New Route 6 Interchange in the Town of Barnstable

August 2008

March 1998

January 1998

Other active CCC Planning Grants:

US Dept of Housing & Urban Development – HOME program

Coastal Zone Management – Mass Bays Program

EPA – Wastewater Planning

EOEA – District Local Technical Assistance

DEP – U. Mass. School of Marine Science & Technology

NPS – Outer Cape Maintenance Study

NPS – Outer Cape Parking & Transit Study

NPS – Integrated Bicycle Study

NPS – Intelligent Transportation Implementation Plan

Monomoy Refuge – Monomoy Access Study

List of staff and estimated percentage of time allocated to MassDOT funded (PL) tasks in the 2009-2010 UPWP:

Patty Daley, Technical Services Manager	25%
Lev A. Malakhoff, Senior Transportation Engineer	85%
Priscilla N. Leclerc, Senior Transportation Planner	85%
Glenn Cannon, PE, Transportation Engineer	30%
Clay Schofield, PE, Transportation Engineer	40%
Andrew Koziol, Transportation Analyst	80%
Sharon Rooney, Chief Planner	0%
Ryan Christenberry, Energy Planner	0%
Martha Hevenor, Planner	0%
Tabitha Harkin, Special Projects Coordinator	0%
Anne Reynolds, GIS System Manager	0%
Michael Savarese, GIS Analyst	0%
Seasonal Traffic Technicians	100%

Seasonal Traffic Counting Technician(s) - approximately 10 person weeks 100%

Cape Cod Unified Planning Work Program (UPWP)

Federal Fiscal Year 2011 Funding Summary

		FHWA	MDOT	MDOT/FHWA	FTA	MDOT/FTA	CCC	Other
		PL funds	PL (match)	Scenic Byways	Sec 5303	Sec 5316 Sec 5317		Federal
Task 1	Mgt & Support of the Planning Process & Certification Activities							
1.1	Unified Planning Work Program	\$14,000	\$3,500					
1.2	Transportation Improvement Program	\$38,000	\$9,500					
1.3	CCJTC and MPO activities/Public Participation Program	\$50,000	\$12,500					
1.4	Environmental Justice	\$4,000	\$1,000					
1.5	Access to Jobs/Job Access Reverse Commute/New Freedom	\$2,000	\$500			\$16,900		
	Total for Task 1	\$108,000	\$27,000					
Task 2	Data Collection & analysis activities							
2.1	Traffic Counting Program	\$52,000	\$13,000					
2.2	Transportation database management & pictometry	\$35,000	\$8,750					
	Total for Task 2	\$87,000	\$21,750				\$35,000	
Task 3	Short and long range planning							
3.1	Regional Transportation Plan update	\$30,268	\$7,567		\$20,000		\$5,000	
3.2	Congestion Management Plan	\$30,000	\$7,500					
3.3	Canal Area Long Range Transportation Study	\$32,000	\$8,000					
3.4	Transportation Safety (Locations Study)	\$36,000	\$9,000					
3.5	Bicycle and Pedestrian Network Planning	\$43,600	\$10,900					
3.6	Climate Change Initiatives	\$5,000	\$1,250				\$11,500	
3.7	Follow up on Previous Studies	\$24,000	\$6,000					
	Total for Task 3	\$200,868	\$50,217		\$20,000		\$16,500	\$0
Task 4	Other technical activities							
4.1	Intermodal Coordination & ITS	\$19,000	\$4,750		\$48,471		\$12,118	
4.2	Other Technical Assistance Requests	\$36,400	\$9,100					
4.3	Pavement Management	\$18,000	\$4,500					
	Total for Task 4	\$73,400	\$18,350		\$48,471		\$12,118	\$0
Task 5	CCC Planning and regulatory activities							
5.1	Regulatory						\$69,436	
5.2	Planning						\$25,379	
5.3	Other transportation activities						\$50,527	
	Total for Task 5						\$145,342	
	Appendix A							
	Race Point/MacMillan Pier Bicycle Connection							
	ITS Parking Management System Implementation							
	Extension of the Cape Cod Rail Trail, Phase I							
	Extension of the Cape Cod Rail Trail, Phase II							
	Public and Private Transportation Partners Coordination, Phase II							
	Cape Cod Rail Trail 501c3 Non Profit Alliance							
	5-year and Long Range CC Public Trans Plan							
	Canal Area Long Range Transportation Study							
	Totals	\$469,268	\$117,317	\$0	\$68,471	\$0	\$208,960	\$0
	Key:							
	MDOT = Massachusetts Department of Transportation							
	FHWA = Federal Highway Administration							
	FTA = Federal Transit Administration							
	CCC= Cape Cod Commission							
	CCRTA = Cape Cod Regional Transit Authority							
	PL = Planning funds							
	Sec.5303 = Federal Transit Planning Funds							
	Sec 5316							
	Sec.5317							
	ATPPL=Advanced Transportation for Parks & Public Lands							