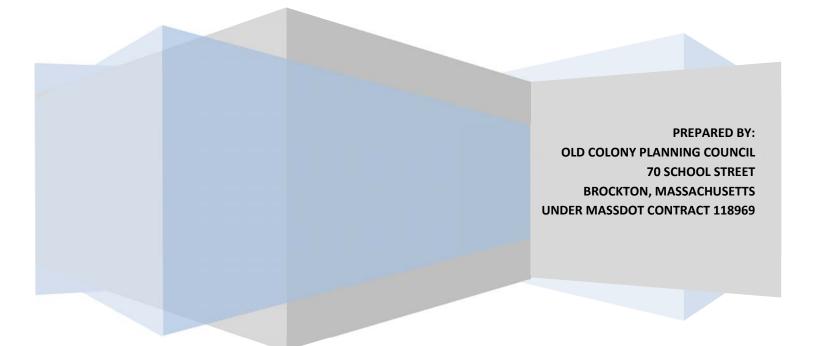
**OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)** 

# FFY 2025-2029 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

ENDORSED BY THE OLD COLONY MPO ON MAY 21, 2024

PREPARED IN COOPERATION WITH:

- BROCKTON AREA TRANSIT AUTHORITY (BAT)
- FEDERAL HIGHWAY ADMINISTRATION (FHWA)
- FEDERAL TRANSIT ADMINISTRATION (FTA)
- MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT)
- OLD COLONY PLANNING COUNCIL (OCPC)



#### TABLE OF CONTENTS

1. INTRO	DUCTION	1
1.1	DEVELOPMENT OF THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP)	1
1.2	BIL, NATIONAL PLANNING FACTORS, AND PERFORMANCE BASED PLANNING	2
1.3	TRANSPORTATION FUNDING PROGRAMS	11
1.4	PUBLIC PARTICIPATION, COORDINATION, AND COORDINATION	13
2. HIGHV	VAY AND BRIDGE PROJECT LISTING BY COMMUNITY	20
2.1	PRIORITIZATION AND TRANSPORTATION EVALUATION CRITERIA (TEC)	20
2.2	UNIVERSE OF PROJECTS, AND GEOGRAPHIC DISTRIBUTION OF PROJECTS	21
3. TIP FE	DERAL REQUIREMENTS AND PROJECT LISTS	25
3.1	ENDORSEMENT OF THE FEDERAL TIP AND AIR QUALITY AND SELF CERTIFICATION COMPLIANCE STATEMENTS ON 3C PROCESS AND GLOBAL WARMING SOLUTIONS ACT	25
3.2	PROCEDURES FOR AMENDMENTS AND ADMINISTRATIVE MODIFICATIONS	25
3.3	FINANCIAL SUMMARY, TARGETS, AND FISCAL CONSTRAINT ANALYSIS	26
3.4	SUMMARY OF REGIONAL FUNDING CATEGORIES	28
3.5	TIP PROJECT LISTS BY YEAR	
	FFY 2025 HIGHWAY AND BRIDGE ELEMENT	29
	FFY 2026 HIGHWAY AND BRIDGE ELEMENT	30
	FFY 2027 HIGHWAY AND BRIDGE ELEMENT	31
	FFY 2028 HIGHWAY AND BRIDGE ELEMENT	32
	FFY 2029 HIGHWAY AND BRIDGE ELEMENT	33
	FFY 2025 TRANSIT ELEMENT	34
	FFY 2026 TRANSIT ELEMENT	35
	FFY 2027 TRANSIT ELEMENT	36
	FFY 2028 TRANSIT ELEMENT	37
	FFY 2029 TRANSIT ELEMENT	38
3.6	AIR QUALITY CONFORMITY DETERMINATION	39

#### APPENDICES

- A. FFY 2025-2029 OLD COLONY TIP ENDORSEMENT
- B. §450.336 SELF CERTIFICATION COMPLIANCE STATEMENT 3C PROCESS
- C. SELF-CERTIFICATION COMPLIANCE STATEMENT 310 CMR 60.05: GLOBAL WARMING SOLUTIONS ACT REQUIREMENTS FOR THE TRANSPORTATION SECTOR AND MASSDOT
- D. GLOSSARY OF TERMS AND ACRONYMS
- E. SYSTEM LEVEL ESTIMATE OF NEEDS AND COST FOR MAINTAINING AND OPERATING THE HIGHWAY SYSTEM
- F. OPERATIONS AND MAINTENANCE EXPENDITURES
- G. FEDERAL REGIONAL FUNDING TARGETS AND STATEWIDE SUMMARIES
- H. TRANSPORTATION EVALUATION CRITERIA (TEC) FORMS
- I. FFY 2023 ANNUAL LISTING OF OBLIGATED (ADVERTISED) PROJECTS
- J. COMPLETED HIGHWAY AND TRANSIT PROJECTS (2015 TO PRESENT; GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS)
- K. FFY 2025-2029 GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS
- L. FFY 2025-2029 GATRA TRANSIT ELEMENT
- M. MBTA FEDERAL CAPITAL PROGRAM FFY 2024 AND FFY 2025-2029 PROJECTS LISTING
- N. TWENTY-ONE (21) DAY PUBLIC REVIEW NOTICE OF AVAILABILITY AND PUBLIC COMMENTS

O. TIP PROJECT REVISION AND DEFINITION PROCEDURES, AND APPROVED ADJUSTMENTS, ADMINISTRATIVE MODIFICATIONS, AND AMENDMENTS

The Old Colony Transportation Improvement Program (TIP) was prepared by the following:

Old Colony Metropolitan Planning Organization (MPO) Members:

- Monica Tibbits-Nutt, MPO Chair, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)
- Michael Lambert, MPO Vice-Chair, Administrator, Brockton Area Regional Transit Authority
- The Honorable Robert Sullivan, Mayor, City of Brockton
- Richard J. Quintal, Jr., Chair, Select Board, Plymouth
- Michael Perez, Board of Selectmen, West Bridgewater (Representing communities with populations less than 15,000 persons)
- Daniel Salvucci, Vice Chair, Board of Selectmen, Whitman (Representing communities with populations more than 15,000 persons)
- Rebecca Coletta, Acting President, Old Colony Planning Council
- Jonathan Gulliver, Administrator, MassDOT Highway Division

MPO Ex-Officio Members (Non-Voting):

- Noreen O'Toole, Chair, Joint Transportation Committee
- Joi Singh, Administrator, Federal Highway Administration Massachusetts Division
- Joshua Barber, Federal Highway Administration
- Peter Butler, Federal Transit Administration

Old Colony TIP Staff Contact:

William McNulty, PTP

## DISCLAIMER

The preparation of this report has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The views and opinions of the Old Colony Planning Council expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

# 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: <u>https://www.mass.gov/road-flaggers-and-police-detail</u>

# NOTICE OF NONDISCRIMINATION RIGHTS AND PROTECTIONS TO BENEFICIARIES

# Federal "Title VI/ Nondiscrimination" Protections

The Old Colony Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of **race**, **color**, or **national origin** (including **limited English proficiency**), be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal assistance. Related federal nondiscrimination laws administrated by the Federal Highway Administration, the Federal Transit Administration, or both prohibit discrimination on the basis of **age**, **sex**, and **disability**. These protected categories are contemplated within the Old Colony MPO's Title VI Programs consistent with federal interpretation and administration. Additionally, the Old Colony MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with US Department of Transportation policy and guidance on federal Executive Order 13166.

# State Nondiscrimination Protections

The Old Colony MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 §§ 92a, 98, 98a, prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based on **race**, **color**, **religious creed**, **national origin**, **sex**, **sexual orientation**, **disability**, or **ancestry**. Likewise, the Old Colony MPO complies with the Governor's Executive Order 526, section 4 requiring all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on **race**, **color**, **age**, **gender**, **ethnicity**, **sexual orientation**, **gender identity or expression**, **religion**, **creed**, **ancestry**, **national origin**, **disability**, **veteran's status** (including Vietnam-era veterans), or **background**.

# Additional Information

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

Old Colony Planning Council Title VI/ Nondiscrimination Coordinator Mary Waldron 70 School Street Brockton, MA 02301 508-583-1833 Extension 202 mwaldron@ocpcrpa.org

Title VI Specialist MassDOT, Office of Diversity and Civil Rights 10 Park Plaza Boston, MA 02116 857-368-8580 TTY: 857-368-0603 MASSDOT.CivilRights@state.ma.us

## **Complaint Filing**

To file a complaint alleging a violation of Title VI or related federal nondiscrimination law, contact the Title VI Specialist (above) within 300 days of the alleged discriminatory conduct.

To file a complaint alleging a violation of the state's Public Accommodation Law, contact the Massachusetts Commission Against Discrimination within 300 days of the alleged discriminatory conduct at:

Massachusetts Commission Against Discrimination (MCAD) One Ashburton Place, 6th Floor Boston, MA 02109 617-994-6000 TTY: 617-994-6196

## **Translation**

## English

If this information is needed in another language, please contact the MPO Title VI Coordinator at 508-583-1833.

## Spanish

Si necesita esta información en otro idioma, por favor contacte al coordinador de MPO del Título VI al 508-583-1833.

## Portuguese

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Título VI da MPO pelo telefone 508-583-1833,

## **Chinese Simple**

如果需要使用其它语言了解信息,请联系Old Colony大都会规划组织(MPO)《民权法案》第六章协调员,电话508-583-1833。

# **Chinese Traditional**

如果需要使用其他語言瞭解資訊,請聯繫Old Colony大都會規劃組織(MPO)《民權法案》第六章協調員,電話508-583-1833。

## Vietnamese

Nếu quý vị cần thông tin này bằng tiếng khác, vui lòng liên hệ Điều phối viên Luật VI của MPO theo số điện thoại 508- 583-1833,.

## Haitian Creole

Si yon moun bezwen enfòmasyon sa a nan yon lòt lang, tanpri kontakte Koòdonatè a Title VI MPO nan 508-583-1833.

## **French Creole**

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Kowòdinatè MPO Title VI la nan nimewo 508-583-1833.

## Russian

Если Вам необходима данная информация на любом другом языке, пожалуйста, свяжитесь с Координатором Титула VI в МРО по тел: 508-583-1833.

## French

Si vous avez besoin d'obtenir une copie de la présente dans une autre langue, veuillez contacter le coordinateur du Titre VI de MPO en composant le 508-583-1833.

## Italian

Se ha bisogno di ricevere queste informazioni in un'altra lingua si prega di contattare il coordinatore MPO del Titolo VI al 508- 583-1833

## Mon-Khmer, Cambodian

ប្រសិនបើលោក-អ្នកត្រូវការបកប្រែព័ត៌មាននេះ សូមទាក់ទងអ្នកសម្របសម្រួលជំពូកទី6 របស់ MPO តាមរយៈលេខទូរស័ព្ទ 508-583-1833 ។

## Arabic

إذا كنت بحاجة إلى هذه المعلومات بلغة أخرى، يُرجى الاتصال بمنسق الفقرة السادسة لمنظمة التخطيط الحضري على الهاتف: 583-1833 -583 وثم اضغط الأرقام.

Updated December 2019 Old Colony Planning Council

#### 1. INTRODUCTION

The Old Colony Metropolitan Planning Organization (Old Colony MPO) is the regional governing body established by federal law to oversee regional transportation planning and recommend the distribution of transportation funds locally. This includes the responsibilities for conducting a "3C" planning process (continuous, cooperative, and comprehensive) for transportation planning in the 17 communities of the region for all modes of travel, including roadways and highways, public transportation, bicycles, pedestrians, connections to air, ferry, and railroads. The Old Colony MPO is responsible for endorsing several Federal certification documents that include the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program (UPWP).

The transportation planning area covered by the MPO includes the 17 communities of the Old Colony Region: Abington, Avon, Bridgewater, Brockton, Duxbury, East Bridgewater, Easton, Halifax, Hanover, Hanson, Kingston, Pembroke, Plymouth, Plympton, Stoughton, West Bridgewater, and Whitman, and the Brockton Area Transit Authority (BAT).

The Old Colony MPO consists of eleven (11) members. The following eight (8) members are voting members: MassDOT; MassDOT Highway Division; Brockton Area Transit Authority (BAT); Old Colony Planning Council (OCPC); City of Brockton; Town of Plymouth; A Community with a population greater than 14,000; and a community with a population less than 15,000. The following three (3) members: Old Colony Joint Transportation Committee (JTC) Chairperson, Federal Highway Administration (FTWA), and Federal Transit Administration (FTA) are ex-officio, non-voting members of the Old Colony MPO.

The Old Colony MPO has established a committee of professionals known as the Old Colony Joint Transportation Committee (JTC) to serve as the transportation advisory group to the MPO. The JTC Members consist of representatives of the seventeen communities of the Old Colony Region: Abington, Avon, Bridgewater, Brockton, Duxbury, East Bridgewater, Easton, Halifax, Hanover, Hanson, Kingston, Pembroke, Plymouth, Plympton, Stoughton, West Bridgewater, and, Whitman, Brockton Area Transit Authority, Greater Attleboro Trenton Regional Transit Authority (GATRA), and MassDOT.

#### **1.1 Development of the Transportation Improvement Program**

The Old Colony MPO prepares the Transportation Improvement Program (TIP), which is a staging of transportation projects proposed for implementation during federal fiscal years 2025, 2026, 2027, 2028, and 2029. Projects listed in the TIP include those in the Long-Range Element and Short-Range Element of the Old Colony Long Range Transportation Plan (LRTP). The TIP describes the project, provides its projected costs and associated funding sources.

The Old Colony MPO collaborates cooperatively with the communities of the Old Colony Region, Brockton Area Transit (BAT), Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning, Massachusetts Department of Transportation Rail & Transit Division, and Massachusetts Department of Transportation District 5. Projects are selected from the previous TIP, from proposals made by local officials, by members of the Old Colony Joint Transportation Committee (JTC), the Massachusetts Department of Transportation, Brockton Area Transit Authority, and/or the MPO staff itself based on the Long-Range Transportation Plan. Information and data concerning current projects are obtained from MassDOT, Brockton Area Transit Authority, and/or the community responsible for the design of the project. An annual solicitation for projects commences typically in January.

During TIP development, current and proposed projects are evaluated using Transportation Evaluation Criteria (TEC), and recommended to the Old Colony MPO for consideration and determination of a Preferred Set of Projects. Projects are scored on a scale of 100 maximum possible points on Transportation Evaluation Criteria in six categories: System Preservation (30 Possible Points); Safety (30 Possible Points); Mobility (10 Possible Points); Economic Impact (10 Possible Points); Environment and Community Health (10 Possible Points); and Policy and Support (10 Possible Points). As the criterion in System Preservation and Safety indicate potential to satisfying Safety (PM1), Congestion Management (PM2), Efficiency (PM3), and Transit Asset Management (TAM) performance targets these categories are weighted higher than the others. The MPO staff uses the Transportation Evaluation Criteria results, as well as readiness information, available funding, and other pertinent information to develop a Draft TIP. The Old Colony MPO releases the Draft TIP for a 21-Day Public Review and Comment Period. Following the 21-Day Public Review and Comment Period, the Old Colony MPO considers the comments received, and then endorses the TIP if there are no significant changes.

## 1.2 Bipartisan Infrastructure Law (BIL), National Planning Factors, and Performance Based Planning

The Bipartisan Infrastructure Law (BIL) requires MPOs to implement a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process. To meet this requirement, the Old Colony MPO develops the Long Range Transportation Plan and Transportation Improvement Program that facilitate the safe and efficient movement of safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity bus facilities and commuter van pool providers) and that fosters economic growth and development within and between States and urbanized areas, and take into consideration resiliency needs while minimizing transportation-related fuel consumption and air pollution in all areas of the region.

The BIL continues to emphasize performance-based planning as an integral part of the metropolitan planning process: states are to develop performance goals, guided by the national goals, and then MPOs will work with state departments of transportation to develop MPO performance measures and targets, or adopt the statewide performance measures and targets. The TIP integrates MassDOT's and the MPO's performance measures and link transportation-investment decisions to progress toward achieving performance targets. The MPOs, MassDOT, and providers of public transportation jointly agree and have developed specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance to be used in tracking progress towards attainment of critical outcomes for the MPO regions and the collection of data for the MassDOT Asset Management Plan.

One desired outcome of performance-based planning is constant quality improvement in project selection and delivery with respect to meeting national goals. If a particular project did not help the plan meet its stated goals, or was more effective than originally thought, that information can inform future decisionmaking. Done properly, performance-based planning not only improves project selection and prioritization, it also can make a compelling case for the Old Colony MPO's LRTP and why the communities and providers of public transit are invested in its outcome.

The Old Colony MPO develops the TIP with consideration of additional planning activities within the metropolitan area and utilizes a process that provides for the design and delivery of transportation services within the metropolitan planning area. During the development of the LRTP, region specific

targets were developed through meetings of a sub-committee and then presented and reviewed by the Old Colony JTC and Old Colony MPO.

The TIP is designed such that once implemented, it makes progress toward achieving the performance targets. Performance-based planning attempts to make the transportation investment decision-making process both informed and accountable. Projects and services implemented through the TIP will help to achieve the performance targets for Safety (PM1), Bridge and Pavement Condition (PM2), System Performance Measures (PM3), Transit Asset Management (TAM) State of Good Repair (SGR), and Public Transit Agency Safety Plan (PTASP).

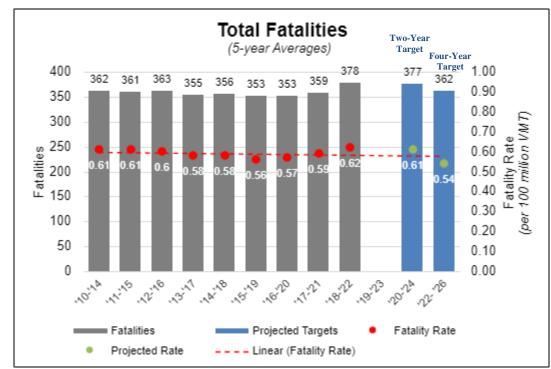
## Safety Performance Measures and Targets (PM1)

The Old Colony MPO has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2024. In setting these targets, MassDOT has followed FHWA guidelines by using statewide crash data and Highway Performance Monitoring System (HPMS) data for vehicle miles traveled (VMT) in order to calculate 5 year, rolling average trend lines for all FHWA-defined safety measures.

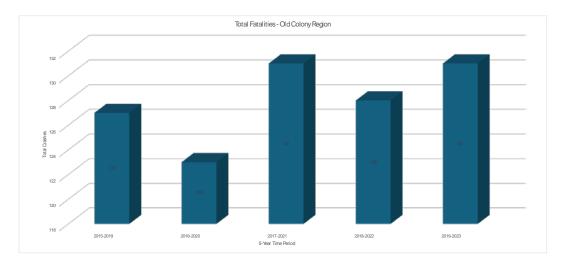
**Total Fatalities:** Per Federal Highway Administration (FHWA) guidance, the calendar year (CY) 2024 target setting process began with a trend line projection based on the most recent available data. This year, MassDOT also developed a 2022-2026 target to be consistent with the Highway Safety Office and National Highway Traffic Safety Administration (NHTSA). Due to higher rates of speeding caused by decreased vehicle miles traveled (VMT) amid pandemic shutdowns in 2020 and the lingering impacts in 2021 and 2022, roadway fatalities were increasing relative to previous years. Furthermore, the Infrastructure Investment and Jobs Act (IIJA) requires "performance targets to demonstrate constant or improved performance," so Massachusetts is unable to use increasing "targets." Although the latest 2023 data suggests fatalities are trending towards pre-COVID levels, the data is incomplete and was not used when the target setting process began. Therefore, MassDOT developed the target for CY 2024 by projecting the 2023 and 2024 fatalities to be in line with pre-COVID data. As a result, year over year changes reflect a decrease of approximately 20% when comparing 2021 and 2022 to 2023 and 2024. However, the 5-year average from 2018-2022 to 2020-2024 sees only a minor decrease from 378 to 377. If this trend continues, the 2022-2026 average will drop to 362, a reduction 4%.

As always, MassDOT's overarching goal is zero deaths and this goal will be pursued by implementing strategies from the <u>Strategic Highway Safety Plan</u> (SHSP). The Massachusetts SHSP and <u>Vulnerable Road</u> <u>User Safety Assessment</u> were both updated and finalized in 2023. These strategies help provide details on how the state will drive down fatalities and serious injuries. Moreover, it should be restated that while MassDOT developed numeric targets, the goal is 0 and MassDOT will continue to work toward that goal by implementing SHSP strategies.

**Fatality Rate:** The fatality rate represents five-year average fatalities divided by five-year average VMTs. The COVID-19 pandemic greatly impacted VMT, causing fatality rates to spike in 2020 with significantly lower VMT and slightly higher fatalities. Data projections for 2023 indicate VMT will exceed pre-pandemic levels. Consequently, the five-year average fatality rate is expected to decrease from 0.62 fatalities per 100 million VMT for 2018-2022, to 0.61 fatalities per 100 million VMT in 2020-2024, a reduction of 1.63% If this trend continues, MassDOT projects a decrease to 0.54 fatalities per 100 million VMT, a reduction of 1.2%.



Note: 2023 data is not complete and therefore was not used for target setting purposes.

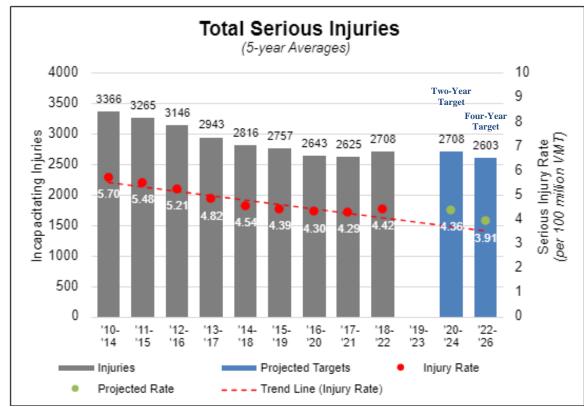


**Total Serious Injuries:** The target setting process began with a trend line projection based on the most recent available data. The 2021 and 2022 serious injury data were not finalized in the statewide crash system during this process, so it is possible these figures will change once that data becomes final.

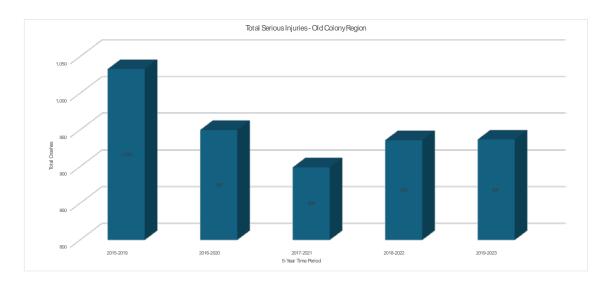
Due to higher rates of speeding caused by decreased VMT amid pandemic shutdowns in 2020 and the lingering impacts in 2021 and 2022, serious injuries increased relative to previous years. Although the latest 2023 data suggests serious injuries are trending towards pre-COVID levels, the data is incomplete and was not used when the target setting process began. Therefore, MassDOT developed the target for CY 2024 by projecting the 2023 and 2024 serious injuries to be in line with pre-COVID data. As a result, year over year changes reflect a decrease of approximately 10% when comparing 2021 and 2022 to 2023

and 2024. However, the 5-year average from 2018-2022 to 2020-2024 remains the same at 2,708 serious injuries. If this trend continues, the 2022-2026 average will drop to 2,603, a 4% reduction.

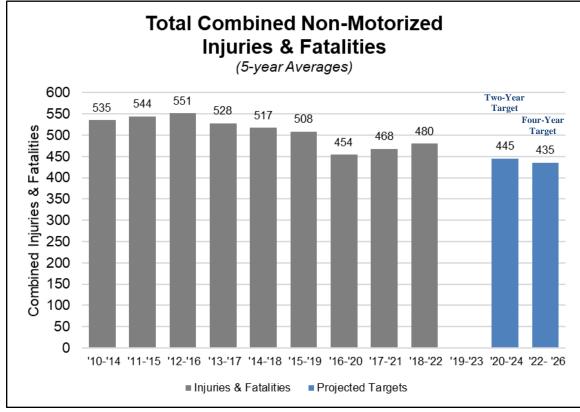
**Serious Injuries Rate:** Similar to the fatality rate, serious injury rates were greatly impacted due to COVID. Following the methods above, the projection is now 4.36 serious injuries per 100 million VMT for 2020-2024. This reflects a 1.36% reduction compared to the 2018-2022 serious injuries rate of 4.42. If this trend continues, the 2022-2026 rate will drop to 3.91 serious injuries per 100 million VMT, a 11% reduction.



Note: 2023 data is not complete and therefore was not used for target setting purposes.



**Total Number of Non-Motorized Fatalities and Serious Injuries:** The number of non-motorized fatalities and serious injuries decreased during the start of the pandemic in 2020, followed by an increase in 2021 and dramatic spike in 2022. Based on the state's emphasis on vulnerable road users, MassDOT anticipates the 2023 and 2024 numbers to match those from 2020. This results in a 5-year average of non-motorist fatalities and serious injuries decreasing from 480 (2018-2022) to 445 (2020-2024), a 7.3% reduction. Looking ahead to 2026, the average combined non-motorist fatalities and serious injuries is expected to decrease to 435, a reduction of approximately 9%.



Note: 2023 data is not complete and therefore was not used for target setting purposes.

**Note:** The fatality and serious injury data contained here was developed to align with the data included in MassDOT's annual Highway Safety Improvement Program (HSIP) report. As such, historical data may be different from what was reported in prior years.

The targets were developed in coordination with the Executive Office of Public Safety and Security (EOPSS), the Highway Safety Division (HSD), and other sections within MassDOT. Although MassDOT emphasizes that the state's goal is zero fatalities and serious injuries, the state targets presented here are not "goals" but realistic targets considering the events of the last 3+ years. The Secretary of Transportation and Highway Division Administrator for MassDOT approved the targets recognizing that MassDOT must demonstrate short term incremental steps in order to achieve the Commonwealth's goal.

## System Preservation Performance (PM2)

The Old Colony MPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide bridge and pavement performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by December 16<sup>th</sup>, 2022. In setting these targets, MassDOT has followed FHWA guidelines by measuring bridges and pavement condition using the 9-point National Bridge Inventory Standards (NBIS); the International Roughness Index (IRI); the presence of pavement rutting; and the presence of pavement cracking. 2-year and 4-year targets were set for six individual performance measures: percent of bridges in good condition; percent of bridges in poor condition; percent of Interstate pavement in good condition; percent of non-Interstate pavement in good condition; and percent of non-Interstate pavement in poor condition. All of the above performance measures are tracked in greater detail in MassDOT's 2022 Transportation Asset Management Plan (TAMP).

Targets for bridge-related performance measures were determined by identifying which bridge projects are programmed and projecting at what rate bridge conditions deteriorate. The bridge-related performance measures measure the percentage of deck area, rather than the total number of bridges.

Performance targets for pavement-related performance measures were based on a single year of data collection, and thus were set to remain steady under the guidance of FHWA. These measures are to be revisited at the 2-year mark (2024), once three years of data are available, for more informed target setting.

MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker using the Pavement Serviceability Index (PSI), which differs from IRI. These measures and targets are used in conjunction with federal measures to inform program sizing and project selection.

## FFY 2025-2029 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Performance Measure	Current (2021)	2-year target (2024)	4-year target (2026)
Bridges in good condition	16%	16%	16%
Bridges in poor condition	12.2%	12%	12%
Interstate Pavement in good condition	71.8%	70%	70%
Interstate Pavement in poor condition	0.0%	2%	2%
Non-Interstate Pavement in good condition		30%	30%
Non-Interstate Pavement in poor condition		5%	5%

#### System Performance Measures (Congestion, Reliability, and Emissions) (PM3)

The Old Colony MPO has chosen to adopt the 2-year (2024) and 4-year (2026) statewide reliability, congestion, and emissions performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by December 16, 2022, with MPOs either adopting the statewide target or establishing their own by June 2023.

MassDOT followed FHWA regulation in measuring Level of Travel Time Reliability (LOTTR) on both the Interstate and non-Interstate NHS as well as Truck Travel Time Reliability (TTTR) on the Interstate system using the National Performance Management Research Dataset (NPMRDS) provided by FHWA. These performance measures aim to identify the predictability of travel times on the roadway network by comparing the average travel time along a given segment against longer travel times. For LOTTR, the performance of all segments of the Interstate and of the non-Interstate NHS are defined as either reliable or unreliable based on a comparison between the 50<sup>th</sup> percentile travel time and the 80<sup>th</sup> percentile travel time, and the proportion of reliable segments is reported. For TTTR, the ratio between the 50<sup>th</sup> percentile travel time and the 90<sup>th</sup> percentile travel time for trucks only along the Interstate system is reported as a statewide measure.

The Old Colony MPO is an agency whose planning area includes communities in the Boston Urbanized Area (UZA), and as a signatory to the 2018 Boston UZA Memorandum of Understanding (Boston UZA MOU)—has also adopted 2-year (2024) and 4-year (2026) Boston UZA-wide congestion performance measure targets. These performance measures are the percentage of non-single occupancy vehicle (SOV) travel and the Peak Hour Excessive Delay (PHED). Targets were developed in coordination with state Departments of Transportation and neighboring MPOs with planning responsibility for portions of the Boston UZA.

The percentage of non-SOV travel is approximated using the U.S. Census Bureau's American Community Survey (ACS) Journey-to-Work data. This metric is based on the percentage of people commuting to work using a mode other than a single occupancy vehicle. In the Boston UZA, the proportion of non-SOV travel has been steadily increasing and is projected to continue increasing at a rate of 1.4% annually.

PHED is measured by totaling the number of hours spent in excessive delay (defined as travel time at 20 miles per hour or at 60% of the posted speed limit, whichever is greater) in peak hours (between 6:00am and 10:00am, and between 3:00pm and 7:00pm) divided by the total UZA population. For this reporting

period, targets are proposed considering the uncertainty of the trend post-pandemic and follow a trendline approach similar to TTR measures. In the Boston UZA, the 2024 target is set at a realistic 24, while the 2026 target of 22 is proposed to establish an improving target and one that is below prepandemic numbers.

Emissions reduction targets are measured as the sum total of all emissions reductions anticipated through CMAQ-funded projects in non-attainment or air quality maintenance areas (currently the cities of Lowell, Springfield, Waltham, and Worcester, and the town of Oak Bluffs) identified in the Statewide Transportation Improvement Program (STIP). This anticipated emissions reduction is calculated using the existing CMAQ processes.

Measure	Current (2021)	2-year (2023)	4-year (2025)
Interstate LOTTR	84.2%	74.0%	76.0%
Non-Interstate LOTTR	87.2%	85.0%	87.0%
TTTR	1.61	1.80	1.75
PHED (Boston UZA)	18.0	24.0	22.0
PHED (Springfield UZA)	6.2	6.5	6.0
PHED (Worcester UZA)	6.8	7.0	5.0
% non-SOV (Boston UZA)	36.9%	38.8%	39.8%
% non-SOV (Springfield UZA)	21.5%	22.2%	22.2%
% non-SOV (Worcester UZA)	23.4%	25.4%	26.1%
Emissions Reductions: PM2.5			
Emissions Reductions: NOx	0.490	0.000	0.000
Emissions Reductions: VOC	0.534	0.000	0.000
Emissions Reductions: PM10			
Emissions Reductions: CO	6.637	0.354	0.354

## Transit System Asset (TAM) Condition Performance Measures and Targets

Table 4 lists a set of federally required infrastructure condition performance measures for transit systems along with BAT's Performance Targets. These transit asset management (TAM) measures, which focus on a specific subset of all transit assets, were established in the FTA's TAM Rule. Brockton Area Transit presented this information along with supporting documentation to the Old Colony MPO in November 2022. The Old Colony MPO has adopted BAT's FY 2023 Brockton Area Transit Authority Transit Asset Management (TAM) State of Good Repair Targets in their entirety and as their own and for the Old Colony Region, in accordance with the certified 3C Transportation Planning Process. The Old Colony MPO will continue to assist BAT in striving towards achieving these targets through our project prioritization process and with our evaluation criteria, which considers asset condition an important factor in the selection process. Within the 2025-2029 Transit TIP, projects include the purchase of support vehicles and

new buses (35' & 40'). By purchasing the new support vehicles and buses, BAT will maintain their rolling stock in excellent condition and meet the performance targets within the TAM Plan.

Performance	Targets by Asse	t Category	•			
Category	Class	Metric	Performance Target for FY 2024	Total Number of Vehicles	# of Vehicles that exceed ULB - FY 2024	% of Fleet that exceed ULB - FY 2024
		X% of fleet				
		that exceeds				
Rolling		default ULB				
Stock	Buses	of 14	11.00%	46	5	10.87%
		X% of fleet				
		that exceeds				
	Cutaway	default ULB				
	Buses	of 10	25.00%	4	1	25.00%
		X% of fleet				
		that exceeds				
		default ULB				
	Vans	of 8	21.00%	58	12	20.69%
		X% of non-				
		revenue				
		service				
	Non-	vehicles that				
	Revenue	exceeds				
	Service	default ULB				
Equipment	Vehicle	of 8	60.00%	5	3	60.00%
		X% of non-				
		revenue				
		service				
		vehicles that				
	Non-	exceeds				
	Revenue	default ULB				
	Service Truck	of 8	40.00%	5	2	40.00%
		X% of				
		facilities				
	Admin/	rated under				
	Maintenance	3.0 on Term				
Facilities	Facility	scale	0.00%	3	0	0.00%

 Table 4

 Brockton Area Transit Authority Performance Measures and Targets

FTA defines ULB as "the expected lifecycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment." For example, FTA's default ULB value for a bus is 14 years. FTA's Transit Economic Requirements Model (TERM) scale, which pertains to the facilities measure, is a rating system that describes asset condition. The scale values are 1 (poor), 2 (marginal), 3 (adequate), 4 (good), and 5 (excellent). Because each measure is intended to represent the share of transit assets that are not in a state of good repair, the goal is to minimize the value for all four measures. FTA grantees, including transit agencies and agency sponsors, such as MassDOT, are required to develop targets for these TAM measures

each fiscal year. MPOs, in turn, are required to set targets for their regions. BAT submitted agency-level targets for state fiscal year (SFY) 2022 (July 2022 through June 2023) to the Old Colony MPO. Their targets reflect the most recent data available on the number, age, and condition of their assets, and their expectations and capital investment plans for improving these assets during SFY 2023.

#### Public Transit Agency Safety Plan (PTASP) Performance Measures and Targets

The Public Transportation Agency Safety Plan (PTASP) details the safety processes and procedures for the Brockton Area Transit Authority (BAT). This plan utilizes existing agency safety practices and best practices to be implemented to meet the new regulation set in 49 CFR Part 673 of the federal guidelines and was provided to Old Colony Planning on September 15, 2020.

The PTASP includes formal documentation to guide the agency in initiative-taking safety management policy, safety risk management, safety assurance, and safety promotion. The goal is to provide management and labor a comprehensive, collaborative approach to managing safety. The plan includes the process and schedule for an annual review to evaluate the safety performance measures and update processes to continuously improve the organization's safety practices.

BAT has developed and approved performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. The targets in Table 5 are based on the review of the previous five years of BAT's safety performance data.

	Table 5							
E	Brockton Ar	ea Transit A	uthority Safety	Performa	nce Measu	res and Targ	gets	
Safety Perfor	mance Targe	ets						
Mode of Transit Service	Fatalities (Total)	Fatalities (Rate)	Injuries (Total)	Injuries (Rate)	Safety Events (Total)	Safety Events (Rate)	System Reliability (Miles between Major Failure)	
Fixed Route	0	0	10	7.6	6	4.6	20,0000	
Demand Response	0	0	4	5.9	4	5.9	30,000	

On November 17, 2020, the Old Colony MPO adopted BAT's Safety Performance Measures and Targets in their entirety and as their own and for the Old Colony Region, in accordance with the certified 3C Transportation Planning Process. The Old Colony MPO will continue to assist BAT in striving towards achieving these targets through our project prioritization process and with our evaluation criteria, which considers safety an important factor in the selection process. Similar to BAT's TAM Plan, new bus and support vehicle purchases included in the FFY 2025-2029 Transit TIP is also anticipated to help reach the safety targets listed in the PTASP. The new buses and support vehicles will replace the older vehicles and they are expected to be more reliable and safer on the roadways. In addition, the purchasing of support equipment and associated capital maintenance item will assist in the repair of the older vehicles.

#### **1.3 Transportation Funding Programs**

The major sources of TIP funding are the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and MassDOT. The United States Congress authorizes federal funding for these transportation projects through federal legislation. For highways and mass transportation, the most recent authorization was the Bipartisan Infrastructure Law (BIL) (2022). Federal funding received from BIL is allocated to different funding programs. State funds are also a key component for transportation purposes.

#### Highway Funding Programs

- National Highway Performance Program (NHPP) provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS.
- National Highway Freight Program (NHFP) Program provides funds for projects that improve efficient movement of freight on the National Highway Freight Network (NHFN).
- Surface Transportation Block Grant Program (STBG) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.
- **Congestion Mitigation and Air Quality Improvement Program (CMAQ)** provides flexible funding for transportation projects and programs to help meet the requirements of the Clean Air Act.
- Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land.
- Transportation Alternatives Program (TAP) provides funds for a variety of activities related to improving transportation assets, including on- and off- road pedestrian and bicycle facilities, environmental mitigation, and creating or improving recreational trails projects.
- Carbon Reduction Program (CRP): The Bipartisan Infrastructure Law (BIL) establishes the Carbon Reduction Program (CRP), which provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO2) emissions from on-road highway sources.
- RAISE Discretionary Grants (RAISE): RAISE discretionary grants, which were originally created under the American Recovery and Reinvestment Act as TIGER grants, can be used for a wide variety of projects.
- Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Program provides In addition to formula grants to States, \$1.4 billion in competitive grants to eligible entities to increase the resilience of our transportation system. PROTECT Grants will support planning, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure.
- Safe Streets for All (SS4A) Program: The <u>Bipartisan Infrastructure Law</u> (BIL) established the new Safe Streets and Roads for All (SS4A) discretionary program with \$5 billion in appropriated funds

over 5 years. The SS4A program funds **Safe** regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries

- Reconnecting Communities Pilot (RCP) Program: The <u>Bipartisan Infrastructure Law</u> (<u>BIL</u>) established the new Reconnecting Communities Pilot (RCP) discretionary grant program, funded with \$1 billion over the next 5 years. It is the first-ever Federal program dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure. Funding supports planning grants and capital construction grants, as well as technical assistance, to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities.
- Bridge Replacement and Rehabilitation Program provides funds for rehabilitation and replacement of any bridge on a public road. Bridges on the federal-aid system or off the federalaid system are eligible for these funds.
- Non-Federal Aid (NFA) contains all projects not receiving federal funds. Various categories of state funding are included in this group such as bikeways, State Aid (Chapter 90), MassWorks, highway construction, and maintenance.

#### Transit Funding Programs

- Section 5307 provides funds to urbanized areas and to governors for transit capital and operating
  assistance in urbanized areas and for transportation-related planning. An urbanized area is an
  incorporated area with a population of 50,000 or more that is designated as such by the U.S.
  Department of Commerce, Bureau of the Census.
- Section 5310 provides funds to enhance the mobility for seniors and persons with disabilities by
  providing funds for programs to serve the special needs of transit-dependent populations beyond
  traditional public transportation services and Americans with Disabilities Act (ADA)
  complementary paratransit services.
- Section 5311 provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations.
- Section 5339 provides funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.
- Community Transit Grant Program (CTGP) awards funds to help meet the transportation and mobility needs of seniors and people with disabilities. The annual competitive program distributes Federal Transit Administration Section 5310: Enhanced Mobility of Seniors & Individuals with Disabilities funds and State Mobility Assistance Program (MAP) funds.

#### **1.4 Public Participation, Coordination, and Consultation**

Transportation planning is one component of the Continuing, Cooperative, and Comprehensive performance-based multimodal transportation planning process that includes land use/ growth management, housing, open space and recreation, economic development, historic preservation, and

water quality. It is important that these potentially conflicting elements be consistent with one another to facilitate the efficient movement of people and goods in the region. The first step in obtaining consistency is the coordination and consultation with appropriate agencies and groups on existing projects. Each of the functional planning areas uses common land use, population and employment statistics, and forecasts.

An underlying principle of the metropolitan planning process is public participation, coordination, and consultation with agencies and groups. The FFY 2025-2029 Transportation Improvement Program was developed in accordance with the Public Participation Plan (PPP) for the Old Colony Region. The PPP defines a process for providing individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cash-out program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process. The hybrid public participation process continued and utilized a virtual and digital mode. Meetings of the Joint Transportation Committee and the Metropolitan Planning Organization have continued via virtual meetings, dissemination of information via email, website, and newsletters has continued, and staff has remained reachable for questions and comments via telephone and email. Staff has also had some in person project specific meeting. Legal advertisements notifying the public of the availability of the Draft TIP and the ability to comment have continued.

Brockton Area Transit Authority, the FTA Section 5307(c) applicant, has consulted with the Old Colony Metropolitan Planning Organization and concurs that the public involvement process adopted by the MPO for development of the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects (POP) for the regular Section 5307, Urbanized Area Formula Program, grant applications including the provisions for public notice and the time established for public review and comment. The public discussion of the Transportation Improvement Program at Old Colony JTC, Old Colony MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration.

As such, Brockton Area Transit utilizes the Old Colony MPO's public participation process as its public participation process. The public discussion of the Transportation Improvement Program at Old Colony JTC, Old Colony MPO, and transportation meetings satisfies the Program of Projects (POP) public hearing requirements of the Federal Transit Administration.

Public participation in the TIP development process is welcomed and encouraged. The TIP is posted on the Old Colony Planning Council Website. The public can participate in the development of the TIP by attending meetings of the JTC, MPO, and OCPC, contacting the staff for information or individual meetings, reviewing, and commenting on draft TIPs. To ensure that there is equity in the distribution of transportation resources and that there is reasonable access to the planning process, the Old Colony MPO continually conducts Title VI and Environmental Justice planning for the Old Colony Region. The overall engagement methodology is described is the following sections.

The Old Colony MPO consults with agencies and officials responsible for other planning activities within the metropolitan planning area that are affected by transportation (including State and local planned growth, economic development, tourism, natural disaster risk reduction, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities.

Staff utilized a diverse methodology for coordination, consultation, and engaging the public to the maximum extent possible in the development of the TIP. The methodology is as follows:

- Old Colony Metropolitan Planning Organization The MPO provided continual oversight of the TIP development and project programming and has the responsibility of ultimately endorsing the TIP. Monthly meetings took place on the third Tuesday of the month.
- Old Colony Joint Transportation Committee Functioning as the advisory committee to the Old Colony MPO and Old Colony Planning Council, this committee assists with the identification of transportation deficiencies and provides regular input and review of TIP products. The Committee consists of superintendents and or directors of highway department of public works, town planners, engineers, etc.
- Old Colony Planning Council (OCPC) The Old Colony Planning Council discusses the TIP development and provides both planning and policy guidance at regularly scheduled OCPC Board of Directors meetings.
- Transit Providers MPO staff seeks input regarding transit needs and projects from the Brockton Area Transit Regional Transit Authority, Greater Attleboro-Taunton Regional Transit Authority (GATRA), MBTA, and the South Shore Community Action Council (SSCAC).
- Coordination and consultation activities Coordination and consultation, and/or information dissemination activities take place with multiple agencies and groups. As such, these coordination and consultation activities may take place with: Brockton Area Transit, Cape Verdean Association of Brockton, Chief Elected Officials, Departments of Public Works and Highway Departments, Massachusetts Department of Transportation, Greater Attleboro Taunton Transit Authority, Massachusetts Department of Transportation District 5, MBTA, Metro South Chamber of Commerce, NAACP, Plymouth and Brockton (P&B), Plymouth Area Chamber of Commerce, Plymouth County Development Council, South Shore Chamber of Commerce, and South Shore Community Action Council.
- Transportation Advisory Network (TAN) The TAN Outreach Contact List consists of over 200 members. Members include chief elected officials, legislators, planning boards, Massachusetts Department of Transportation, Federal Highway Administration, Federal Transit Administration, transit providers, minority groups, city and town clerks, media outlets, and transportation officials. The objective is to provide continuing outreach to a wide network. Council staff provides announcements of product availability, upcoming events, and meetings associated with the TIP to the TAN. The TAN Outreach Contact List is shared with MassDOT-Office of Transportation Planning, and MassDOT-Office of Diversity and Civil Rights.
- Media Outlets Staff utilizes media outlets to solicit public comment, advertise meetings, and advertise TIP availability. Examples of media outlets are 95.9 WATD, the Brockton Enterprise, the Ojornal, and the Patriot Ledger.

- Copies of the Draft TIP are posted on the OCPC website and are provided upon request via email and direct mail. As such, reasonable access, and opportunities to review the Draft TIP are provided.
- 21-Day Public Review Period During the public review period for the Draft TIP, copies are available, and their availability are advertised using multiple media outlets and the TAN. During the period, public meetings were held, and the staff was available to discuss the Draft TIP with the public upon request.

#### Environmental Justice and Social Equity

Environmental Justice (EJ) is an important part of the planning process and is considered in all phases of planning. A truly integrated and effective planning process actively considers and promotes environmental justice within projects and groups of projects, across the total plan, and in policy decisions. All reasonably foreseeable adverse social, economic, and environmental effects on minority populations and low-income populations must be identified and addressed. There are three fundamental Environmental Justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and lowincome populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

Public involvement is an integral part of transportation planning and project development decisionmaking. The U.S. DOT Order (5610.2) on Environmental Justice directs the provision for minority populations and low-income populations greater access to information on and opportunities for public participation in matters that may affect human health and the environment.

Effective public involvement in the planning process and the project-development process can alert State and local agencies about environmental justice concerns so that they do not result in surprises during the project-development stage. Continuous interaction between community members and transportation professionals is critical to successfully identify and resolve potential Environmental Justice concerns. The Old Colony MPO has public-involvement procedures established that provide for consideration of Environmental Justice. These procedures provide an inclusive, representative, and equal opportunity for communication resulting in appropriate action that reflects this public involvement. Environmental Justice is considered in all aspects of planning and project decision-making, including the design of both the public-involvement plan and the proposed facility. Detailed information on these procedures is included in the Old Colony Public Participation available here: https://oldcolonyplanning.org/wpcontent/uploads/2022/09/Old\_Colony\_Public\_Participation\_Plan\_2021.pdf?ver

Environmental Justice Analysis asks whether a proposed action or plan causes disproportionately high and adverse effects on minority populations and low-income populations, and whether these populations are denied benefits. A framework of analysis that can determine how a proposed action or plan could differentially affect different populations is important. As such, an analysis of benefits and burdens is utilized. In addition, computer mapping of Environmental Justice Areas along with past, present, and future projects funded through the Transportation Improvement Program, available transit services and

their associated walking times, commuter parking facilities, pavement conditions, high crash locations, areas of congestion are utilized to measure the distribution of funding (to ensure geographic equity), to determine priorities areas of need/ and or concern.

Examinations of potential benefits and burdens because of the implementation of the TIP were conducted. Examples of benefits considered were mobility, accessibility, infrastructure condition, environment, reliability, safety, security, load factors, efficiency, and consultation with riders in improving bus services to the transit dependent. While examples of burdens considered were: air, noise, and water pollution and soil contamination, destruction or disruption of community cohesion or a community's economic vitality, destruction or disruption of the availability of public and private facilities and services, adverse employment effects, displacement of persons, businesses, farms, or nonprofit organizations, increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community, and the denial of, reduction in, or significant delay in the receipt of, benefits of programs, policies, or activities.

An assessment of the benefits and burdens of the Transportation Improvement Program was completed to identify all regionally significant projects constructed and/or programmed in the Old Colony Transportation Improvement Program during the period of 2003 - 2029. Constructed projects funded through the TIP were included to provide a benchmark of investments. The constructed projects were compiled and then the staff analyzed the location of these improvements relative to Environmental Justice Communities. Environmental Justice Communities in the Old Colony MPO Region are Brockton, Easton, Plymouth, Stoughton, and Whitman.

For the purposes of identifying these communities, the staff utilized the MassGIS Environmental Justice GIS Shape file. Polygons in the Environmental Justice Populations layer represent neighborhoods across the state with high minority, non-English speaking, low-income, and foreign-born populations. Specifically, a community is identified as an Environmental Justice Community if any the following are true within that community:

- Contains a Block group whose annual Median Household Income is equal to or less than 65 percent of the Massachusetts Median Household Income of \$85,843 (\$56,220 in 2019); or
- 25% or more of the residents identify as a race other than white; or
- 25% or more of households have no one over the age of 14 who speaks English only or very well
   English Isolation.

Regionally, it was determined that 8 of the identified improvement projects, representing approximately 26.5 percent of the identified investment dollars on the FFY 2025-2029 TIP are in EJ communities. The percentage of investment approximates the 35.0 percent of the region's population identified as living in EJ communities. Non-mappable projects, such as transit vehicle replacements or rehabilitations, and other non-location-specific projects are not included in this analysis. Projects that are not in environmental justice communities are still considered regionally signgicant, such as bridges and limited access highway improvements. These improvements benefit the region, and provide access to many key employment centers, including downtown Brockton and regional commercial and employment destinations.

investment value of the highway Projects 2025-2025 (Projects Planned)							
Туре	Population Represented in EJ Communities (2020)	Percent Population Represented	TIP Project Investment*	Percentage of Projects by Total Investment (\$)			
Within EJ Communities	137,634	35.0%	\$45,665.862	26.5%			
<b>Outside EJ Communities</b>	255,615	65.0%	\$126,546,020	73.5%			
Totals	393,249	100.0%	\$172,211,882	100%			

Table 6 Investment Value of TIP Highway Projects 2025-2029 (Projects Planned)

\*Includes Projects funded with Regional Target Funds, Statewide Funds, Bridge Funds, or Non-Federal Aid Funds.

The Old Colony MPO undertook further analysis to determine the level of highway investment during the most recent 20-year period from 2005-2024. From that analysis, it was concluded that 60 percent of the 70 identified improvement projects, representing approximately 58.6 percent of the identified investment dollars allocated during the TIP years of 2005-2024 are in EJ communities. The percentage of investment dollars exceed the 35.0 percent of the region's population identified as living in EJ communities.

investment value of the Projects 2003 - 2024 (Projects implemented)								
Туре	Population Represented in EJ Communities (2020)	Percent Population Represented	TIP Project Investment*	Percentage of Projects by Total Investment (\$)				
Within EJ Communities	137,634	35.0%	\$175,161,905	58.6%				
Outside EJ Communities	255,615	65.0%	\$123,624,883	41.4%				
Totals	393,249	100.0%	\$298,786,788	100%				

Table 7 Investment Value of TIP Projects 2005 - 2024 (Projects Implemented)

\*Includes Projects funded with Regional Target Funds, Statewide Funds, Bridge Funds, or Non-Federal Aid Funds.

The first step towards understanding the profile of individuals that could participate in the transportation planning process and reside in community that is a recipient of TIP project funding is a review of U.S Census data. Table 8 displays the number of individuals who are Limited English Proficient (LEP). For our planning purposes, we are considering people that speak English "not well" or "not at all."

Tables 8 and 9, derived from the 2018 US Census American Community Survey, shows the number and percent of persons who are five (5) and older, regarding their English language skills, for the communities within the MPO area and several adjacent municipalities. It should be noted that the U.S. Census has changed how it collects data on the number of LEP individuals in each area. In years past, the U.S. Census collected LEP data down to the census block level, but due to privacy concerns, the U.S. Census no longer gets as granular in its LEP data collection efforts. In the case of the Old Colony Region, LEP data is collected

on the community level, and with some communities, LEP information is provided only on a multicommunity level.

As seen in the Tables 8 and 9, approximately 9% of the area population is not proficient in English. The highest concentration of LEP individuals is in the community grouping of Duxbury, Kingston, Marshfield, Plymouth, and Situate at 18%. While the combined communities of Avon, Brockton, and Stoughton have the second concentration of LEP persons at 51.4% and received 43% of the projects in the 20-year period from FFY 2010-2029 TIP.

Table 8

	Table 8							
Investment Value of TIP Projects and Limited English Proficient (LEP) 2025-2029								
	2018			Number of		TIP Project		
	Population of		Percentage	TIP	Percentage	Expenditures,		
	5 Years or	Number of	of LEP	Projects,	of Total	2010 through		
<b>Community Grouping</b>	Older	LEP Persons	Persons	2010-2029	Projects	2029 (\$)		
Avon, Brockton, and								
Stoughton	120,300	20,882	51.4%	8	38%	\$43,280,679		
Abington, Bridgewater, East								
Bridgewater,								
Easton,Rockland, Whitman,								
and West Bridgewater	115,811	2,869	7.1%	7	33%	\$31,518,122		
Halifax, Hanover, Hanson,								
Pembroke, and Plympton	106,948	1,121	2.8%	2	10%	\$13,784,158		
Duxbury,Kington,Marshfield,								
Plymuth, and Scituate	87,514	15,781	38.8%	4	19%	\$111,899,470		
Total	430,573	40,653	100.0%	21	100%	\$200,482,429		

Table 9

#### Historical Investment Value of TIP Projects and Limited English Proficient (LEP) 2010-2029

	2018			Number of		TIP Project
	Population of		Percentage	TIP	Percentage	Expenditures,
	5 Years or	Number of	of LEP	Projects,	of Total	2010 through
Community Grouping	Older	LEP Persons	Persons	2010-2029	Projects	2029 (\$)
Avon, Brockton, and						
Stoughton	120,300	20,882	51.4%	31	43%	\$148,738,034
Abington, Bridgewater, East						
Bridgewater,						
Easton,Rockland, Whitman,						
and West Bridgewater	115,811	2,869	7.1%	21	29%	\$78,955,839
Halifax, Hanover, Hanson,						
Pembroke, and Plympton	106,948	1,121	2.8%	8	11%	\$40,151,048
Duxbury,Kington,Marshfield,						
Plymuth, and Scituate	87,514	15,781	38.8%	12	17%	\$168,309,789
Total	430,573	40,653	100.0%	72	100%	\$436,154,710

LEP Source: 2018 ACS 5 year B16001 LEP Languages

From the examination of benefits and burdens, it is the determination that no projects implemented because of the TIP will result in adverse impacts to the Environmental Justice Areas in the Old Colony region.

As such, from the review, it may be concluded from the public investment and involvement in the regional transportation planning process and the resultant FFY 2025-2029 Transportation Improvement Program and previous TIPs (dating back to 2010) demonstrate that the benefits of the regional transportation

planning process are afforded equitably to both EJ and Non-EJ communities. Given this equitable distribution and investment, it is finding of the Old Colony MPO that the Low-income and minority populations are not disproportionately impacted and are beneficiaries of the transportation planning process and project implementation in the Old Colony Region.

As such, the Old Colony MPO continues to collaborate with our regional partners in the advancement of environmental justice principles throughout the regional planning process. Such analyses will be conducted annually and included in the endorsed TIP.

#### 2. HIGHWAY AND BRIDGE PROJECT LISTING BY COMMUNITY

#### 2.1 Prioritization and Transportation Evaluation Criteria

Several factors are considered when developing the prioritization and programming of TIP projects. They include:

- Financial feasibility of project
- Local and regional support for the project
- Need for project to be implemented (safety, congestion, etc.)
- Project has been derived from the Management Systems (Congestion, Safety, and Pavement)
- Project has Project Review Committee (PRC) approval and/or a MassDOT ID
- Project must have reasonable progress in design, permitting, and right-of-way, etc., to ensure that the project can be implemented in the active year
- Project implementation will assist with making progress towards achievement of adopted performance measures and targets
- Results of Annual TIP Readiness Day
- Results of Transportation Evaluation Criteria

#### Transportation Evaluation Criteria (TEC)

With transparency and reasonableness in mind, in 2004, the Old Colony MPO began utilizing TIP project transportation evaluation criteria to inform the process of evaluating and selecting projects for programming in the TIP. The transportation evaluation criteria are a means of assisting decision makers in the programming projects that will help the region attain the visions established by the Old Colony MPO, which includes, to maintain a state of good repair, focus investments on existing activity centers, improve mobility for people and freight, reduce the level of greenhouse gas emissions, minimize environmental burdens from transportation facilities on low-income and minority populations, and provide safe transportation for all modes. Projects with components and outcomes that help attain the goals of the Old Colony MPO receive higher scores.

#### **Evaluation of Projects**

The Transportation Evaluation Criteria utilized for the FFY 2025-2029 Transportation Improvement Program are included in Appendix H. The scoring results of the Transportation Evaluation Criteria are included with the applicable projects listed in the Universe of Projects provided in Table 9. System reliability projects such as preservation projects on limited access highways or transit state of good repair projects are not evaluated, as they are required projects identified through asset management systems.

The TIP projects are evaluated and are scored in six of the seven criteria categories: (Condition, Mobility, Safety, Community Effects and support, Land Use and Economic Development, and Environmental Effects) on a scale of +3 to -3. The cost effectiveness category is not scored to mitigate concerns regarding equity among urban, suburban, and rural projects.

In general, this step scores the <u>impact</u> the evaluated project will have on each of the six criteria. The proposed rating scale is as follows:

- A score of +3 is highly beneficial,
- A score of zero is neutral or not applicable,
- A score of –3 is highly detrimental.

The category scores for a project are then combined into an overall score of between +18 and -18, and the scores are then converted to a 100-point scale.

The Old Colony MPO considers whether a project's implementation will assist in making progress towards achievement of adopted performance measures and targets and utilizes evaluation criteria ratings and project readiness information to prepare a First-Tier List of Projects. This is a list of the projects with the highest ratings that could be made ready for advertising within the TIP's time horizon (next four federal fiscal years). The staff relies on the MassDOT Highway Division to provide information about what year a project would be ready for advertising. In developing the recommendation for the draft TIP, the staff strongly considers the First-Tier List of Projects. The Old Colony MPO staff also factors in projects that are listed in the Long-Range Transportation Plan to implement the LRTP, considers geographic and social equity to help ensure that the list of projects addresses needs throughout the region, and accounts for cost to comply with fiscal constraint.

#### **2.2** Universe of Projects and Geographic Distribution of Projects

The following is a listing of projects ranked, from high to low, by Transportation Evaluation Criteria Score. The Program Year refers to which year the project is programmed or if it is not programmed.

Table 10 Universe of Projects						
PROJECT LOCATION AND DESCRIPTION	PROJECT ID#	PROGRAM YEAR	TEC SCORE			
BROCKTON - ROUTE 123 (CENTRE STREET) AT						
PLYMOUTH STREET SIGNALIZATION AND GEOMETRIC IMPROVEMENTS	609052	2025	75			
BROCKTON - IMPROVEMENTS AND RELATED WORK ON						
CRESCENT STREET (ROUTE 27), INCLUDING REPLACEMENT OF GROVE STREET BRIDGE, B-25-005,						
OVER SALISBURY PLAIN RIVER	607818	2026	74			
STOUGHTON - INTERSECTION IMPROVEMENTS AT CANTON STREET (ROUTE 27), SCHOOL STREET AND						
SUMMER STREET	611981	2028	74			
EAST BRIDGEWATER - INTERSECTION IMPROVEMENTS AT HIGHLAND STREET AND NORTH BEDFORD STREET						
(ROUTE 18)	611976	2029	71			
EASTON- INTERSECTION IMPROVEMENTS AT ROUTE 138						
AND TURNPIKE STREET, AT ROUTE 138 AND PURCHASE STREET, AT TURNPIKE STREET AND PURCHASE STREET	612975	NOT PROGRAMMED	67			

# FFY 2025-2029 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

STOUGHTON- INTERSECTION IMPROVEMENTS AT ROUTE			
27 (PARK STREET) AND TURNPIKE STREET	613277	2029	65
BROCKTON - INTERSECTION IMPROVEMENTS AND	013277	2023	05
RELATED WORK AT CENTRE STREET (ROUTE 123), CARY STREET AND LYMAN STREET	600410	2024	64
	609410	2024	64
ABINGTON - INTERSECTION IMPROVEMENTS AT			
HANCOCK STREET AND CHESTNUT STREET	609440	2026	61
	000110	2020	
BROCKTON - INTERSECTION IMPROVEMENTS AT ROUTE			
123 (BELMONT STREET), PEARL STREET AND STONEHILL			
STREET	612262	2028	61
HANOVER- INTERSECTION IMPROVEMENTS AT	012202	2020	
COLUMBIA ROAD (ROUTE 53/139) AND BROADWAY	613599	2029	59
BROCKTON - INTERSECTION IMPROVEMENTS @	010000	2023	
CRESCENT STREET (ROUTE 27)/ QUINCY STREET/			
MASSASOIT BOULEVARD	606143	NOT PROGRAMMED	59
ABINGTON - INTERSECTION IMPROVEMENTS,	000145		55
RANDOLPH STREET AND RICHARD A FITTS DRIVE (ROUTE			
139) AT CHESTNUT STREET AND OLD RANDOLPH STREET	612525	2027	58
•	012323	2027	30
EASTON - CORRIDOR IMPROVEMENTS ON ROUTE 138			
INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE	C00105	2025	<b>F7</b>
138 (WASHINGTON STREET) AND ELM STREET	608195	2025	57
AVON - INTERSECTION IMPROVEMENTS AT ROUTE 28,	C11070	2020	<b>F7</b>
SPRING STREET AND HARRISON BOULEVARD	611979	2026	57
HANOVER- CORRIDOR IMPROVEMENTS ON ROUTE 139			
(HANOVER STREET) AT MAIN STREET, CENTER STREET	649769	2022	
AND SILVER STREET	612769	2028	57
EASTON - RECONSTRUCTION AND RELATED WORK ON			
ROUTES 138 AND 123, FROM BELMONT STREET TO			
DEPOT STREET	612617	NOT PROGRAMMED	57
ABINGTON - INTERSECTION IMPROVEMENTS AT ROUTE			
18 AND ROUTE 123	612770	2028	55
HANSON - CORRIDOR IMPROVEMENTS ON ROUTE 14			
(MAQUAN STREET), FROM THE PEMBROKE T.L. TO			
INDIAN HEAD STREET AND RELATED WORK	608506	NOT PROGRAMMED	54
WHITMAN- CORRIDOR IMPROVEMENTS ON SOUTH			
AVENUE (ROUTE 27)	613643	NOT PROGRAMMED	54
DUXBURY - SIGNAL INSTALLATION @ ROUTE 3 (NB & SB)			
RAMPS & ROUTE 3A (TREMONT STREET)	606002	2027	53
DUXBURY - INTERSECTION IMPROVEMENTS AT ROUTE			
53 AND FRANKLIN STREET	613269	2028	53
BROCKTON - ABINGTON - PEDESTRIAN AND BICYCLE			
IMPROVEMENTS ON ROUTE 123	609520	2029	53
EASTON - RESURFACING AND RELATED WORK ON ROUTE			
138 (ROOSEVELT CIRCLE TO STOUGHTON TOWN LINE	608585	NOT PROGRAMMED	48

## FFY 2025-2029 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

(EXCLUDING THE SECTION FROM ELM STREET TO UNION STREET))			
STREET))			
STREET/			
EASTON - IMPROVEMENTS ON FOUNDRY STREET			
(ROUTE 106/123)	612269	NOT PROGRAMMED	47
BROCKTON - IMPROVEMENTS ON FOREST AVENUE,			
FROM WEST STREET TO BREER STREET	612526	NOT PROGRAMMED	46
EAST BRIDGEWATER - INTERSECTION IMPROVEMENTS			
AT BEDFORD STREET (ROUTE 18), WEST STREET (ROUTE			
106) AND EAST STREET	611968	NOT PROGRAMMED	43
AVON - CORRIDOR IMPROVEMENTS ON ROUTE 28	610804	NOT PROGRAMMED	33
STOUGHTON - RECONSTRUCTION OF TURNPIKE STREET	607214	NOT PROGRAMMED	TBD
PLYMPTON - BRIDGE REPLACEMENT, WINNETUXET			
ROAD OVER WINNETUXET RIVER	609435	2024	n/a
EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010			
(BVT) POND STREET OVER SATUCKET RIVER	613306	2029	n/a
WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-			
004, FOREST STREET OVER TOWN RIVER	613132	2029	n/a
		2027 ADVANCE	
DUXBURY - BRIDGE REPLACEMENT, D-14-003 (438),		CONSTRUCTION	
	612006	PHASE 1 OF 2	n/a
KINGSTON - BRIDGE REPLACEMENT, K-01-014, SMITHS			
LANE OVER ROUTE 3 (PILGRIM HIGHWAY)	608615	NOT PROGRAMMED	n/a
REGIONAL – INTRA-REGIONAL MULTI-MODAL ACTIVE	NOS		
TRANSPORTATION NETWORK AF	PPLICABLE	NOT PROGRAMMED	n/a

#### **Geographic Distribution and Equity Analysis of Projects**

The Old Colony MPO monitors the geographic distribution of TIP projects over time. Table 11 provides the distribution of TIP projects from 2010 through 2029. To assist with providing context to the distribution, included in the table is 2020 Population and 2019 Median Household Income.

From an examination of the distribution of TIP projects from 2010 through 2029, the following observations may be made:

- There are higher concentrations of projects within the more populated urban areas (i.e., Brockton at 26.4 percent of all projects). Such concentrations tend to follow areas with elevated levels of congestion, bicycle and pedestrian activity, and crash clusters.
- The towns of Easton (8.3%), Pembroke (6.9%), and Stoughton (8.3%) also had higher concentration of projects. A potential explanation for such a trend is that these populous communities feature proximity to limited access highways, commuter rail, and academic institutions of higher learning. Such features, while beneficial in many respects, also lead to higher pedestrian, bicyclist and vehicle trips, and the need for additional multimodal and infrastructure.

Regarding equity, it is observed that Brockton, with 70.6% Title VI Minority Population, had 26.4% of the TIP projects of the 2010-2029 span, while Stoughton with 37.9% Title VI Minority Population, had 8.3% of the projects during the same time.

					Number			
					of TIP		TIP Project	
				Median	Projects,		Expenditures	
		2020 Title	Percent	Household	2010	Percentage	, 2010	Per Capita
	2020	<b>VI</b> Minority	Title VI	Income,	through	of Total	through 2029	Expenditure
Community	Population	Population	Minority	2019	2029	Projects	(\$)	(\$)
Abington	17,062	2,910	17.1%	\$99,381	4	5.6%	\$13,886,247	\$813.87
Avon	4,777	1,685	35.3%	\$85,200	4	5.6%	\$19,329,686	\$4,046.41
Bridgewater	28,633	4,997	17.5%	\$95,675	4	5.6%	\$25,238,688	\$881.45
Brockton	105,643	74,569	70.6%	\$58,469	19	26.4%	\$75,366,863	\$713.41
Duxbury	16,090	1,081	6.7%	\$128,173	4	5.6%	\$128, 152, 169	\$7,964.71
East Bridgewater	14,440	1,560	10.8%	\$90,528	4	5.6%	\$13,611,872	\$942.65
Easton	25,058	4,025	16.1%	\$112,268	6	8.3%	\$26,088,920	\$1,041.14
Halifax	7,749	519	6.7%	\$92,774	0	0.0%	\$0	\$0.00
Hanover	14,833	1,140	7.7%	\$127,981	2	2.8%	\$13,784,158	\$929.29
Hanson	10,639	844	7.9%	\$96,693	0	0.0%	\$0	\$0.00
Kingston	13,708	1,069	7.8%	\$96,104	4	5.6%	\$18,592,631	\$1,356.33
Pembroke	18,361	1,285	7.0%	\$103,905	5	6.9%	\$24,613,677	\$1,340.54
Plymouth	61,217	6,673	10.9%	\$90,279	4	5.6%	\$21,564,989	\$352.27
Plympton	2,930	162	5.5%	\$94,167	1	1.4%	\$1,753,213	\$598.37
Stoughton	29,281	11,088	37.9%	\$83,519	6	8.3%	\$34,971,539	\$1,194.34
West Bridgewater	7,707	968	12.6%	\$97,404	4	5.6%	\$13,209,242	\$1,713.93
Whitman	15,121	1,969	13.0%	\$86,570	1	1.4%	\$5,990,816	\$396.19
Totals	393,249	116,544	29.6%		72	100.0%	\$436,154,710	\$3,742.40

Table 11TIP Investment by Community, 2010-2029

#### 3. TIP - FEDERAL REQUIREMENTS AND PROJECT LISTS

3.1 Endorsements of the FFY 2025-2029 Old Colony TIP, Self-Compliance Statements of the Comprehensive, Continuing, Cooperative Transportation Planning Process, and Self Compliance Statements of the 310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation

The Unified Planning Work Program, Long Range Transportation Plan, and Transportation Improvement Program, together with any amendments, were developed in accordance with FHWA and FTA regulations governing the implementation of the Bipartisan Infrastructure Law (BIL), EPA regulations governing the implementation of the Clean Air Act Amendments of 1990, and fully incorporates the applicable requirements of the 1964 Civil Rights Act and the Americans with Disabilities Act of 1990. From certification reviews conducted in 2006, 2011, 2016, and 2019 the FHWA and FTA have determined that the transportation planning process of the MPO substantially meets the requirements of the Metropolitan Planning Rule 23 CFR Part 450 Subpart C and 49 CFR Part 613. In addition, FHWA and FTA have jointly certified the transportation planning process.

Endorsement of FFY 2025-2029 Old Colony TIP is provided in Appendix A.

Self-Compliance Statements of the Metropolitan Transportation Planning Process is provided in Appendix B.

Self-Compliance Statements of the 310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation is provided in Appendix C.

#### **3.2 Procedures for Amendments and Administrative Modifications**

The TIP is a "living" document and is likely to be modified during the year. The definitions and procedures outlined in this section are followed when project-based revisions to the TIP are necessary (Detailed TIP Project Revision and Definition Procedures are included in Appendix N).

#### **TIP Amendment**

A revision to the Transportation Improvement Program that requires public review and demonstration of financial constraint. The public process for a TIP amendment requires a publicly advertised 21-day public comment period and for the MPO to address any public commentary prior to endorsement. The Old Colony MPO, at their discretion, may vote to abbreviate the public comment period under what they consider extraordinary circumstances beyond the MPO's control. TIP Amendments are prompted by the major change(s) in a project.

#### **TIP Adjustment**

A revision to the STIP that is does not require a public process, but that is required to be included in a TIP action with a demonstration of financial constraint for FHWA/FTA approval.

#### TIP Administrative Modification

A revision to the TIP that is minor enough in nature to require neither a public process nor FHWA/FTA approval, but that does involve a notification to federal partners.

#### **3.3 Financial Summary, Targets, and Fiscal Constraint Analysis**

The Massachusetts Department of Transportation Office of Transportation Planning, in consultation with the Regional Planning Agencies and utilizing the Massachusetts Association of Regional Planning Agencies (MARPA) Formula, provides each region with yearly-targeted federal funding levels with state match for highway and bridge projects, and separate yearly targets for projects that qualify for Congestion Mitigation Air Quality funds, Highway Safety Improvement Program (HSIP) funds, and Transportation Alternative Program funds. These Funding Targets are in Appendix G. The anticipated funds, programmed funds and fiscal constraint analysis is summarized below in Table 12. The Summary of Regional Funding Categories in Table 13 provides specifics on fund amount by funding category.

Table 12								
Funding Totals of Programmed Highway and Bridge Projects, and Fiscal Constraint Analysis								
	Total of Anticipated Funds		Total of Unprogrammed Funds (Fiscal Constraint					
	(Bridge Funds, Regional	Total of Programmed						
<b>Fiscal Year</b>	Targets, and Statewide Funds)	Funds	Analysis)					
2025	\$22,835,063	\$21,508,202	\$1,326,861					
2026	\$19,230,022	\$17,370,131	\$1,859,891					
2027	\$57,558,056	\$48,481,635	\$9,076,421					
2028	\$51,472,642	\$49,957,378	\$1,515,264					
2029	\$38,436,149	\$36,083,372	\$2,352,777					
Totals	\$189,531,932	\$173,400,718	\$16,131,214					

#### Table 13

#### Funding Totals of Programmed Transit Projects, and Fiscal Constraint Analysis

	Total of Anticipated Transit	Total of	Total of Unprogrammed		
	Funds (Bridge Funds, Federal,	Programmed	Funds (Fiscal Constrain		
Fiscal Year	State, Local)	Funds	Analysis)		
2025	\$5,600,000	\$5,600,000	\$0		
2026	\$13,155,300	\$13,155,300	\$0		
2027	\$13,923,120	\$13,923,120	\$0		
2028	\$8,350,000	\$8,350,000	\$0		
2029	\$21,350,000	\$21,350,000	\$0		
Totals	\$62,378,420	\$62,378,420	\$0		

The Transportation Improvement Program is financially constrained according to the definition in the 23 CFR Part 450.324. Project costs programmed in the TIP are expressed in Year of Expenditure (YOE) dollars. The cost inflation factor utilized is increased 4% annually (e.g., 2026 at 4%; 2027 at 8%; 2028 at 12%, and 2029 at 16%). The projects programmed do not exceed the funding estimates of federal and state funds available in each of these fiscal years. Additionally, the transit projects programmed in the TIP are financially constrained to available resources and they have been reviewed and approved for programming by MassDOT Rail & Transit, and the MassDOT Office of Transportation Planning.

The financial plans in Tables 11 and 12 demonstrate fiscal constraint, and reflect the emphasis on the maintenance and operation, and state of good repair for the highway, bridge, and transit system. In addition, a fiscal constraint analysis is included on each of the highway program programming tables. Only highway, bridge, and transit projects for which funds can be reasonably expected have been included in the financially constrained TIP.

# 3.4 Summary of Regional Funding Categories (FFY 2025-2029)

Summary of Funding Categories (FFY 2025-2029)								
Funding Category	2025	2026	2027	2028	2029	Total		
NHPP	\$9,206,820					\$9,206,820		
SRTS						\$0		
STATEWIDE CMAQ						\$0		
STATEWIDE HSIP		\$5,935,197		\$18,293,993		\$24,229,190		
STATEWIDE STBG						\$0		
Bridge On-System NHS NB						\$0		
Bridge Off-System			\$78,056,439	\$16,406,773	\$12,877,588	\$107,340,800		
STBG	\$12,301,382	\$11,434,934	\$7,385,593	\$15,256,612	\$14,735,159	\$61,113,680		
CMAQ						\$0		
HSIP						\$0		
TAP						\$0		
Subtotal FHWA/ State	\$21,508,202	\$17,370,131	\$85,442,032	\$49,957,378	\$27,612,747	\$201,890,490		
5307 - Operating/ PW/ ADA		\$1,500,000	\$1,500,000	\$1,500,000	\$1,400,000	\$5,900,000		
5307 - Capital	\$1,215,000	\$648,000	\$500,000	\$500,000	\$4,400,000	\$7,263,000		
Carryover						\$0		
5310						\$0		
5339						\$0		
Other Federal Transit		\$5,108,000				\$5,108,000		
State - RTACAP	\$735,000	\$1,439,000	\$125,000	\$125,000	\$3,390,000	\$5,814,000		
State Contract Assistance		\$1,500,000	\$1,500,000	\$1,500,000		\$4,500,000		
Local						\$0		
DOF					\$4,160,000	\$4,160,000		
TDC						\$0		
Subtotal FTA/ State/ Local	\$1,950,000	\$10,195,000	\$3,625,000	\$3,625,000	\$13,350,000	\$32,745,000		
Grand Total	\$23,458,202	\$27,565,131	\$89,067,032	\$53,582,378	\$40,962,747	\$234,635,490		

 Table 14

 Summary of Funding Categories (FFY 2025-2029)

## FFY 2025-2029 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

#### **3.5 TIP PROJECTS BY YEAR**

#### 2025 Old Colony Region Program



								STIP:	2025 - 2029 (E
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
ederal Fiscal Year 2025									
Section 1A / Regionally Prie	oritized Projects						\$12,301,382	\$10,120,385	\$2,180,99
Intersection Improvements	608195	Old Colony	Easton	EASTON- CORRIDOR IMPROVEMENTS ON ROUTE 138 INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE 138 (WASHINGTON STREET) AND ELM STREET 5	5	CMAQ	\$4,000,000	\$3,200.000	\$800.00
Intersection Improvements	608195	Old Colony	Easton	EASTON- CORRIDOR IMPROVEMENTS ON ROUTE 138 INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE 138 (WASHINGTON STREET) AND ELM STREET 5		STBG	\$5,508,592	\$4,406,874	\$1,101,7 <sup>,</sup>
Intersection Improvements	609052	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT CENTRE STREET (ROUTE 123) AND PLYMOUTH STREET 5	5	HSIP	\$2,792,790	\$2,513,511	\$279,2
					CM	AQ Programmed	\$4,000,000	\$3,200,000	\$800,0
					н	SIP Programmed	\$2,792,790	\$2,513,511	\$279,2
					ST	BG Programmed	\$5,508,592	\$4,406,874	\$1,101,7
				Total Programmed f	for Old Colony	Region Projects*	\$12,301,382	\$10,120,385	\$2,180,9
				Program Target	for Old Colony	Region Projects	\$13,628,243	\$10,902,594	\$2,725,64
				Target Funds Available	for Old Colony	Region Projects	\$1,326,861	\$782,209	\$544,6
Section 2B / State Prioritize	ed Modernization I	Projects					\$9,206,820	\$7,365,456	\$1,841,36
Roadway Reconstruction	613358	Old Colony	Stoughton	STOUGHTON- CORRIDOR IMPROVEMENTS ON ROUTE 138, FROM CANTON T.L. TO CHARLES AVENUE (PHASE 2) 5	5	NHPP	\$9,206,820	\$7,365,456	\$1,841,3
							<b>AA A AAAAAAAAAAAAA</b>		
				Old Colony F	Region Total P	rogram Summary	\$21,508,202	\$17,485,841	\$4,022,3

### 2026 Old Colony Region Program



								STIP:	2025 - 2029 ([
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
ederal Fiscal Year 2026									
Section 1A / Regionally Price	oritized Projects						\$11,434,934	\$9,647,023	\$1,787,91
ntersection Improvements	607818	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT LYMAN STREET/GROVE STREET/SUMMER STREET & REPLACEMENT OF GROVE STREET BRIDGE, B-25-005, OVER SALISBURY PLAIN RIVER ABINGTON- INTERSECTION	5	STBG	\$6,444,173	\$5,155,338	\$1,288,83
				IMPROVEMENTS AT HANCOCK STREET					
Intersection Improvements	609440	Old Colony	Abington	AND CHESTNUT STREET	5	HSIP	\$4,990,761	\$4,491,685	\$499,07
					ł	SIP Programmed	\$4,990,761	\$4,491,685	\$499,07
					S	TBG Programmed	\$6,444,173	\$5,155,338	\$1,288,8
				Total Programme	d for Old Colony	Region Projects*	\$11,434,934	\$9,647,023	\$1,787,9
				Program Targ	et for Old Color	y Region Projects	\$13,294,825	\$10,635,860	\$2,658,9
				Target Funds Availab	le for Old Color	y Region Projects	\$1,859,891	\$988,837	\$871,0
Section 2B / State Prioritize	ed Modernization	Projects					\$5,935,197	\$5,341,677	\$593,52
ntersection Improvements	611979	Old Colony	Avon	AVON- INTERSECTION IMPROVEMENTS AT ROUTE 28, SPRING STREET AND HARRISON BOULEVARD	5	HSIP	\$5,935,197	\$5,341,677	\$593,52
				Old Colony	/ Region Total F	Program Summary	\$17,370,131	\$14,988,701	\$2,381,43

### 2027 Old Colony Region Program



								STIP:	2025 - 2029 (
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	- Funding Source	Total Programmed Funds	Federal Funds	Non-Federa Funds
ederal Fiscal Year 2027									
ection 1A / Regionally Pric	oritized Projects						\$7,385,593	\$6,317,430	\$1,068,
				KINGSTON- DUXBURY- INTERSECTION IMPROVEMENTS AT ROUTE 3 RAMPS (NB/SB) AND ROUTE 3A (TREMONT					
tersection Improvements	606002	Old Colony	Multiple	STREET)	5	STBG	\$3,296,038	\$2,636,830	\$659,
				ABINGTON- INTERSECTION IMPROVEMENTS, RANDOLPH STREET AND RICHARD A FITTS DRIVE (ROUTE 139) AT CHESTNUT STREET AND OLD					
oadway Reconstruction	612525	Old Colony	Abington	RANDOLPH STREET	5	HSIP	\$4,089,555	\$3,680,600	\$408,
					F	ISIP Programmed	\$4,089,555	\$3,680,600	\$408,
					S	TBG Programmed	\$3,296,038	\$2,636,830	\$659,
				Total Programme	d for Old Colony	Region Projects*	\$7,385,593	\$6,317,430	\$1,068,
				Program Targ	et for Old Colon	y Region Projects	\$16,462,014	\$13,169,611	\$3,292,
				Target Funds Availab	le for Old Colon	y Region Projects	\$9,076,421	\$6,852,181	\$2,224,
ection 1B / Earmark or Dis	scretionary Grant I	Funded Projects					\$36,960,397	\$36,960,397	
Bridge Off-system Local NB	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	5	BROFF	\$36,960,397	\$36,960,397	
Section 2A / State Prioritize	ed Reliability Proje	cts					\$41,096,042	\$32,876,834	\$8,219,2
ridge Off-system	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	5	STBG-BR-Off	\$41,096,042	\$32.876.834	\$8,219,2
nago on system	012000		Durbuly	DO/DOITH DAT	0	STEC BICON	φ+1,000,0 <del>4</del> 2	φ02,070,00 <del>4</del>	ψ0,210,
					D . T.I.		¢95 112 022	¢76 154 661	¢0 207

 Old Colony Region Total Program Summary
 \$85,442,032
 \$76,154,661
 \$9,287,372

### 2028 Old Colony Region Program



								STIP:	2025 - 2029 (E
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
ederal Fiscal Year 2028									
Section 1A / Regionally Pric	pritized Projects						\$15,256,612	\$12,205,290	\$3,051,3
ntersection Improvements	612262	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT ROUTE 123 (BELMONT STREET), PEARL STREET AND STONEHILL STREET	5	STBG	\$8,361,220	\$6,688,976	\$1,672,2
				HANOVER- CORRIDOR IMPROVEMENTS ON ROUTE 139 (HANOVER STREET) AT MAIN STREET, CENTER STREET AND		07700			
Roadway Reconstruction	612769	Old Colony	Hanover	SILVER STREET	5	STBG	\$6,895,392	\$5,516,314	\$1,379,07
						TBG Programmed	\$15,256,612	\$12,205,290	\$3,051,32
				6	-	/ Region Projects*	\$15,256,612	\$12,205,290	\$3,051,32
						ny Region Projects	\$16,771,876	\$13,417,501	\$3,354,37
				Target Funds Availab	ole for Old Color	ny Region Projects		\$1,212,211	\$303,05
Section 2A / State Prioritize	ed Reliability Proje	ects					\$16,406,773	\$13,125,418	\$3,281,35
				DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER				• • • • • • • • •	• · · · ·
Bridge Off-system	612006	Old Colony	Duxbury	DUXBURY BAY	5	STBG-BR-Off	\$2,084,213	\$1,667,370	\$416,84
Bridge Off-system	608615	Old Colony	Kingston	KINGSTON- BRIDGE REPLACEMENT, K-01- 014, SMITHS LANE OVER ROUTE 3 (PILGRIM HIGHWAY)	5	STBG-BR-Off	\$14,322,560	\$11,458,048	\$2,864,51
Section 2B / State Prioritize	d Modernization	Projects					\$18,293,993	\$16,464,594	\$1,829,39
Intersection Improvements	612770	Old Colony	Abington	ABINGTON- INTERSECTION IMPROVEMENTS AT ROUTE 18 (BEDFORD STREET) AND ROUTE 123(BROCKTON AVENUE)	5	HSIP	\$5,387,025	\$4,848,323	\$538,70
ntersection Improvements	613269	Old Colony	Duxbury	DUXBURY- INTERSECTION IMPROVEMENTS AT ROUTE 53 AND FRANKLIN STREET	5	HSIP	\$8,152,648	\$7,337,383	\$815,26
ntersection Improvements	611981	Old Colony	Stoughton	STOUGHTON- INTERSECTION IMPROVEMENTS AT CANTON STREET (ROUTE 27), SCHOOL STREET AND SUMMER STREET	5	HSIP	\$4,754,320	\$4,278,888	\$475,4

Old Colony Region Total Program Summary \$49,957,378 \$41,795,302 \$8,162,076

### 2029 Old Colony Region Program



Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2029	FIOJECTID						- Tunus		T unus
Section 1A / Regionally Prio	ritized Projects						\$14,735,159	\$12,477,005	\$2,258,15
				EAST BRIDGEWATER- INTERSECTION					
				IMPROVEMENTS AT HIGHLAND STREET					
			East	AND NORTH BEDFORD STREET (ROUTE					
ntersection Improvements	611976	Old Colony	Bridgewater	18)	5	STBG	\$4,060,000	\$3,248,000	\$812,0
				STOUGHTON- INTERSECTION					
	0.40077		Otomoletere	IMPROVEMENTS AT ROUTE 27 (PARK	-	STBG	¢0 700 000	¢0.000.400	<b>*757</b> 0
ntersection Improvements	613277	Old Colony	Stoughton	STREET) AND TURNPIKE STREET	5	SIBG	\$3,786,383	\$3,029,106	\$757,2
				HANOVER- INTERSECTION IMPROVEMENTS AT COLUMBIA ROAD					
ntersection Improvements	613599	Old Colony	Hanover	(ROUTE 53/139) AND BROADWAY	5	HSIP	\$6,888,776	\$6,199,898	\$688,8
ntersection improvements	013399	Old Colorly	Hallovel	(ROUTE 53/139) AND BROADWAT	1.5		\$6,888,776	\$6,199,898	\$688,8
						ISIP Programmed			
						TBG Programmed	\$7,846,383	\$6,277,106	\$1,569,2
				Total Programme		0,	\$14,735,159	\$12,477,005	
				5		Region Projects* y Region Projects	\$17,087,936	\$13,670,349	\$2,258,15 \$3,417,58
				5	et for Old Colon	y Region Projects	\$17,087,936 \$2,352,777	\$13,670,349 \$1,193,344	\$3,417,58
Section 1B / Earmark or Dis	cretionary Grant	Funded Projects		Program Targ Target Funds Availat	et for Old Colon le for Old Colon	y Region Projects	\$17,087,936	\$13,670,349	\$3,417,58 \$1,159,43
Section 1B / Earmark or Dis	cretionary Grant	Funded Projects		Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION,	et for Old Colon le for Old Colon	y Region Projects	\$17,087,936 \$2,352,777	\$13,670,349 \$1,193,344	\$3,417,5 \$1,159,4
				Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER	et for Old Colon	y Region Projects y Region Projects	\$17,087,936 \$2,352,777 \$23,911,289	\$13,670,349 \$1,193,344 \$23,911,289	\$3,417,56 \$1,159,43
ridge Off-system Local NB	613292	Old Colony	Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION,	et for Old Colon le for Old Colon	y Region Projects	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289	\$3,417,5 \$1,159,4
Section 1B / Earmark or Dis Bridge Off-system Local NB Section 2A / State Prioritize	613292	Old Colony		Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER	et for Old Colon	y Region Projects y Region Projects	\$17,087,936 \$2,352,777 \$23,911,289	\$13,670,349 \$1,193,344 \$23,911,289	
Bridge Off-system Local NB	613292	Old Colony		Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14-	et for Old Colon	y Region Projects y Region Projects	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289	\$3,417,58 \$1,159,43
Bridge Off-system Local NB Section 2A / State Prioritize	613292 d Reliability Proje	Old Colony ects	Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER	et for Old Colon	y Region Projects y Region Projects BROFF	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289 \$19,348,213	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289 \$15,478,570	\$3,417,54 \$1,159,43 \$3,869,64
Bridge Off-system Local NB	613292	Old Colony		Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	et for Old Colon	y Region Projects y Region Projects	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289	\$3,417,54 \$1,159,43 \$3,869,64
Bridge Off-system Local NB Section 2A / State Prioritize	613292 d Reliability Proje	Old Colony ects	Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE	et for Old Colon ble for Old Colon 5	y Region Projects y Region Projects BROFF	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289 \$19,348,213	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289 \$15,478,570	\$3,417,5 \$1,159,4 \$3,869,6
Bridge Off-system Local NB Section 2A / State Prioritizer Bridge Off-system	613292 d Reliability Proje 612006	Old Colony acts Old Colony	Bridgewater Duxbury West	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST	et for Old Colon de for Old Colon 5	y Region Projects y Region Projects BROFF STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289 \$19,348,213 \$12,877,588	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289 \$15,478,570 \$10,302,070	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5
Bridge Off-system Local NB Section 2A / State Prioritize	613292 d Reliability Proje	Old Colony ects	Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER	et for Old Colon ble for Old Colon 5	y Region Projects y Region Projects BROFF	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289 \$19,348,213	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289 \$15,478,570	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5
Bridge Off-system Local NB Section 2A / State Prioritizer Bridge Off-system	613292 d Reliability Proje 612006	Old Colony acts Old Colony	Bridgewater Duxbury West Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE	et for Old Colon de for Old Colon 5	y Region Projects y Region Projects BROFF STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$23,911,289 \$19,348,213 \$12,877,588	\$13,670,349 \$1,193,344 \$23,911,289 \$23,911,289 \$15,478,570 \$10,302,070	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5
Bridge Off-system Local NB Section 2A / State Prioritize Bridge Off-system Bridge Off-system	613292 d Reliability Proje 612006 613132	Old Colony old Colony Old Colony	Bridgewater Duxbury West Bridgewater East	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010 (BVT) POND	5 5	y Region Projects Region Projects BROFF STBG-BR-Off STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$19,348,213 \$12,877,588 \$5,081,844	\$13,670,349 \$1,193,344 \$23,911,289 \$15,478,570 \$10,302,070 \$4,065,475	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5 \$1,016,3
aridge Off-system Local NB section 2A / State Prioritize aridge Off-system aridge Off-system	613292 d Reliability Proje 612006 613132 613306	Old Colony Cld Colony Old Colony Old Colony	Bridgewater Duxbury West Bridgewater	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE	et for Old Colon de for Old Colon 5	y Region Projects y Region Projects BROFF STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$19,348,213 \$12,877,588 \$5,081,844 \$1,388,781	\$13,670,349 \$1,193,344 \$23,911,289 \$15,478,570 \$10,302,070 \$4,065,475 \$1,111,025	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5 \$1,016,3 \$277,7
Bridge Off-system Local NB Section 2A / State Prioritizer Bridge Off-system	613292 d Reliability Proje 612006 613132 613306	Old Colony Cld Colony Old Colony Old Colony	Bridgewater Duxbury West Bridgewater East	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010 (BVT) POND	5 5	y Region Projects Region Projects BROFF STBG-BR-Off STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$19,348,213 \$12,877,588 \$5,081,844	\$13,670,349 \$1,193,344 \$23,911,289 \$15,478,570 \$10,302,070 \$4,065,475	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5 \$1,016,3 \$277,7
Bridge Off-system Local NB Section 2A / State Prioritize Bridge Off-system Bridge Off-system	613292 d Reliability Proje 612006 613132 613306	Old Colony Cld Colony Old Colony Old Colony	Bridgewater Duxbury West Bridgewater East	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010 (BVT) POND STREET OVER SATUCKET RIVER	et for Old Colon ble for Old Colon 5 5 5	y Region Projects Region Projects BROFF STBG-BR-Off STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$19,348,213 \$12,877,588 \$5,081,844 \$1,388,781	\$13,670,349 \$1,193,344 \$23,911,289 \$15,478,570 \$10,302,070 \$4,065,475 \$1,111,025	\$3,417,56 \$1,159,43
Bridge Off-system Local NB Section 2A / State Prioritize Bridge Off-system Bridge Off-system	613292 d Reliability Proje 612006 613132 613306	Old Colony Cld Colony Old Colony Old Colony	Bridgewater Duxbury West Bridgewater East	Program Targ Target Funds Availat BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER DUXBURY- BRIDGE REPLACEMENT, D-14- 003 (438), POWDER POINT AVENUE OVER DUXBURY BAY WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010 (BVT) POND	5 5 5	y Region Projects Region Projects BROFF STBG-BR-Off STBG-BR-Off	\$17,087,936 \$2,352,777 \$23,911,289 \$19,348,213 \$12,877,588 \$5,081,844 \$1,388,781	\$13,670,349 \$1,193,344 \$23,911,289 \$15,478,570 \$10,302,070 \$4,065,475 \$1,111,025	\$3,417,5 \$1,159,4 \$3,869,6 \$2,575,5 \$1,016,3 \$277,7

Old Colony Region Total Program Summary \$59,994,661 \$53,466,864 \$6,527,797



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2025									
RTA Facility & System Modernization	T00118	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	5339D	\$1,080,000	\$1,080,000		
RTA Facility & System Modernization	T00118	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	RTACAP	\$270,000		\$270,000	
RTA Facility & Vehicle Maintenance	RTD0011343	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011343	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011344	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$160,000	\$160,000		
RTA Facility & Vehicle Maintenance	RTD0011344	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$40,000		\$40,000	
RTA Facility & Vehicle Maintenance	RTD0011345	BAT		BAT - VEH OVERHAUL (4)	5307	\$900,000	\$900,000		
RTA Facility & Vehicle Maintenance	RTD0011345	BAT		BAT - VEH OVERHAUL (4)	RTACAP	\$900,000		\$900,000	
RTA Facility & Vehicle Maintenance	RTD0011346	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011346	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011348	BAT		BAT - TERMINAL, INTERMODAL	5307	\$1,600,000	\$1,600,000		
RTA Facility & Vehicle Maintenance	RTD0011348	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$400,000		\$400,000	
RTA Vehicle Replacement	RTD0011347	BAT		BAT - ACQUIRE SUPPORT VEHICLES (2)	5307	\$120,000	\$120,000		
RTA Vehicle Replacement	RTD0011347	BAT		BAT - ACQUIRE SUPPORT VEHICLES (2)	RTACAP	\$30,000		\$30,000	
					5307 Programmed	\$2,860,000	\$2,860,000		
					5339D Programmed	\$1,080,000	\$1,080,000		
				F	RTACAP Programmed	\$1,660,000		\$1,660,000	
				Total Programmed for Brockton	Area Transit Projects	\$5,600,000	\$3,940,000	\$1,660,000	



								STIP	: 2025 - 2029 (D
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2026									
RTA Facility & Vehicle Maintenance	RTD0011350	BAT		BAT - A CQUIRE MISC SUPPORT EQUIPMENT	5307	\$140,000	\$140,000		
RTA Facility & Vehicle Maintenance	RTD0011350	BAT		BAT - A CQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$35,000		\$35,000	
RTA Facility & Vehicle Maintenance	RTD0011352	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011352	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011353	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$2,150,000	\$2,150,000		
RTA Facility & Vehicle Maintenance	RTD0011353	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$2,150,000		\$2,150,000	
RTA Facility & Vehicle Maintenance	RTD0011354	BAT		BAT - TERMINAL, INTERMODAL	5307	\$440,000	\$440,000		
RTA Facility & Vehicle Maintenance	RTD0011354	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$110,000		\$110,000	
RTA Fleet Upgrades	RTD0011366	BAT		BAT - BUY REPLACEMENT 40-FT BUS ELECTRIC (5)	5339D	\$5,296,240	\$5,296,240		
RTA Fleet Upgrades	RTD0011366	BAT		BAT - BUY REPLACEMENT 40-FT BUS ELECTRIC (5)	RTACAP	\$1,324,060		\$1,324,060	
RTA Fleet Upgrades	RTD0011367	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	5339D	\$1,120,000	\$1,120,000		
RTA Fleet Upgrades	RTD0011367	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	RTACAP	\$280,000		\$280,000	
RTA Vehicle Replacement	RTD0011351	BAT		BAT - ACQUIRE SUPPORT VEHICLE (1)	5307	\$48,000	\$48,000		
RTA Vehicle Replacement	RTD0011351	BAT		BAT - ACQUIRE SUPPORT VEHICLE (1)	RTACAP	\$12,000		\$12,000	
					5307 Programmed	\$2,818,000	\$2,818,000		
					5339D Programmed	\$6,416,240	\$6,416,240		
				F	RTACAP Programmed	\$3,921,060		\$3,921,060	
				Total Programmed for Brockton	Area Transit Projects	\$13,155,300	\$9,234,240	\$3,921,060	



								STIP	: 2025 - 2029 ([
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2027									
Operating	T00001	BAT		BAT- OPERATING ASSISTANCE	5307	\$2,500,000	\$2,500,000		
Operating	T00001	BAT		BAT- OPERATING ASSISTANCE	SCA	\$2,500,000		\$2,500,000	
RTA Facility & System Modernization	T00119	ВАТ		BAT - ACQUIRE STATIONARY FARE COLLECTION EQUIP	5307	\$2,150,000	\$2,150,000		
RTA Facility & System Modernization	T00119	BAT		BAT - ACQUIRE STATIONARY FARE COLLECTION EQUIP	RTACAP	\$2,150,000		\$2,150,000	
RTA Facility & System Modernization	T00120	BAT		BAT - Acquire Misc. Elec/Pow er Equip	5339D	\$1,080,000	\$1,080,000		
RTA Facility & System Modernization	T00120	BAT		BAT - Acquire Misc. Elec/Pow er Equip	RTACAP	\$270,000		\$270,000	
RTA Facility & Vehicle Maintenance	RTD0011355	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011355	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011356	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011356	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011357	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000		
RTA Facility & Vehicle Maintenance	RTD0011357	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	RTD0011358	BAT		BAT - A CQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000		
RTA Facility & Vehicle Maintenance	RTD0011358	BAT		BAT - A CQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	RTD0011359	BAT		BAT - REHAB RENOVATE - BUS PARK & RIDE LOT	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011359	BAT		BAT - REHAB RENOVATE - BUS PARK & RIDE LOT	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011360	BAT		BAT - PURCHASE MISC COMMUNICATIONS EQUIP SYSTEMS	5307	\$60,000	\$60,000		
RTA Facility & Vehicle Maintenance	RTD0011360	BAT		BAT - PURCHASE MISC COMMUNICATIONS EQUIP SYSTEMS	RTACAP	\$15,000		\$15,000	
RTA Vehicle Replacement	T00121	BAT		BAT - BUY REPLACEMENT 35-FT BUS ELECTRIC (2)	5339D	\$2,118,496	\$2,118,496		
RTA Vehicle Replacement	T00121	BAT		BAT - BUY REPLACEMENT 35-FT BUS ELECTRIC (2)	RTACAP	\$529,624		\$529,624	
					5307 Programmed	\$5,150,000	\$5,150,000		
					5339D Programmed	\$3,198,496	\$3,198,496		
				F	RTACAP Programmed	\$3,074,624		\$3,074,624	
					SCA Programmed	\$2,500,000		\$2,500,000	
				Total Programmed for Brockton	Area Transit Projects	\$13,923,120	\$8,348,496	\$5,574,624	



								STIP	2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2028									
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	5307	\$3,900,000	\$3,900,000		
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	SCA	\$3,900,000		\$3,900,000	
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000		
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000		
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	RTACAP	\$10,000		\$10,000	
					5307 Programmed	\$4,340,000	\$4,340,000		
				R	TACAP Programmed	\$110,000		\$110,000	
					SCA Programmed	\$3,900,000		\$3,900,000	
				Total Programmed for Brockton A	Area Transit Projects	\$8,350,000	\$4,340,000	\$4,010,000	



Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2029									
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	5307	\$4,000,000	\$4,000,000		
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	SCA	\$4,000,000		\$4,000,000	
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000		
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000		
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	RTACAP	\$10,000		\$10,000	
					5307 Programmed	\$4,440,000	\$4,440,000		
					RTACAP Programmed	\$110,000		\$110,000	
					SCA Programmed	\$4,000,000		\$4,000,000	
				Total Programmed for Brockton	Area Transit Projects	\$8,550,000	\$4,440,000	\$4,110,000	

## 3.6 Air Quality Conformity Documentation

This section documents the latest air quality conformity determination for the 1997 ozone National Ambient Air Quality Standards (NAAQS) in the Old Colony Region. It covers the applicable conformity requirements according to the latest regulations, regional designation status, legal considerations, and federal guidance. Further details and background information are provided below:

## Introduction

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. Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones (42 U.S.C. 7506(c)(1)). The U.S. Environmental Protection Agency (EPA) transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, transportation improvement programs (TIPs), and federally supported highway and transit projects conform to the SIP (40 CFR Parts 51.390 and 93).

A nonattainment area is one that the 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 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.

## Legislative and Regulatory Background

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 (NOx), the two major precursors to ozone formation to achieve attainment of the ozone standard.

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 has 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 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 designated as attainment/unclassified for the 2008 standard. On March 6, 2015, (80 FR 12264, effective April 6, 2015) EPA published the Final Rulemaking, "Implementation of the 2008 National Ambient Air Quality Standards (NAAQS) for Ozone: State Implementation Plan Requirements; Final Rule." This rulemaking confirmed the removal of transportation conformity to the 1997 Ozone NAAQS and the replacement with the 2008 Ozone NAAQS, which (with actually a stricter level of allowable ozone concentration than the 1997 standards) classified Massachusetts as "Attainment/unclassifiable" (except for Dukes County).

However, on February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA* (*"South Coast II,"* 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone NAAQS and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. Conformity determinations are required in these areas after February 16, 2019. On November 29, 2018, EPA issued *Transportation Conformity Guidance for the South Coast II Court Decision* (EPA-420-B-18-050, November 2018) that addresses how transportation conformity determinations can be made in these areas. According to the guidance, both Eastern and Western Massachusetts, along with several other areas across the country, are now defined as "orphan nonattainment areas" - areas that were designated as nonattainment for the 1997 ozone NAAQS at the time of its revocation (80 FR 12264, March 6, 2015) and were designated attainment for the 2008 ozone NAAQS in EPA's original designations rule for this NAAQS (77 FR 30160, May 21, 2012).

### **Current Conformity Determination**

After February 16, 2019, as a result of the court ruling and the subsequent federal guidance, transportation conformity for the 1997 NAAQS - intended as an "anti-backsliding" measure - now applies to both of Massachusetts' orphan areas. Therefore, a conformity determination was made for the 1997 ozone NAAQS on the Vision 2050 Long Range Transportation Plans. This conformity determination was finalized in July 2019 following each MPO's previous endorsement of their long-range transportation plan, and approved by the Massachusetts Divisions of FHWA and FTA on October 15, 2019. This conformity determination continues to be valid for the Old Colony FFY 2025-2029 Transportation Improvement Program, and Massachusetts' FFY 2025-2029 STIP, as each is developed from the conforming Vision 2050 Long Range Transportation Plans.

The transportation conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for TIPs and LRTPs include latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), and emissions budget and/or interim emissions (93.118 and/or 93.119).

For the 1997 ozone NAAQS areas, transportation conformity for TIPs and RTPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the *South Coast II* court upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, or budget or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS for the Old Colony FFY 2025-2029 Transportation Improvement Program and Vision 2050 Long Range Transportation Plans can be demonstrated by showing that remaining requirements in Table 1 in 40 CFR 93.109 have been met. These requirements, which are laid out in Section 2.4 of EPA's guidance and addressed below, include:

- Latest planning assumptions (93.110)
- Consultation (93.112)
- Transportation Control Measures (93.113)
- Fiscal Constraint (93.108)

## Latest Planning Assumptions:

The use of latest planning assumptions in 40 CFR 93.110 of the conformity rule generally apply to regional emissions analysis. In the 1997 ozone NAAQS areas, the use of latest planning assumptions requirement applies to assumptions about transportation control measures (TCMs) in an approved SIP (See following section on Timely Implementation of TCMs).

## Consultation:

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation. Interagency consultation was conducted with FHWA, FTA, US EPA Region 1, MassDEP, and the Massachusetts MPOs on March 6, 2019, to discuss the latest conformity-related court rulings and

resulting federal guidance. Regular and recurring interagency consultations have been held since on an (at least) annual schedule, with the most recent conformity consultation held on April 27, 2022. This ongoing consultation is conducted in accordance with the following:

- Massachusetts' Air Pollution Control Regulations 310 CMR 60.03 "Conformity to the State Implementation Plan of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 USC or the Federal Transit Act"
- The Commonwealth of Massachusetts Memorandum of Understanding among the Massachusetts Department of Transportation, Massachusetts Department of Environmental Protection, Massachusetts Metropolitan Planning Organizations, and Regional Transit Authorities, titled <u>The Conduct of Air Quality Planning and Coordination for Transportation Conformity</u> (dated September 16, 2019)

Public consultation was conducted consistent with planning rule requirements in 23 CFR 450.

Title 23 CFR Section 450.324 and 310 CMR 60.03(6)(h) requires that the development of the TIP, LRTP, and related certification documents provide an adequate opportunity for public review and comment. Section 450.316(b) also establishes the outline for MPO public participation programs. The Old Colony MPO's Public Participation Plan was formally adopted in 2021. The Public Participation Plan ensures that the public will have access to the TIP and LRTP and all supporting documentation, provides for public notification of the availability of the TIP and LRTP and the public's right to review the document and comment thereon, and provides a 21-day public review and comment period prior to the adoption of the TIP and LRTP and related certification documents. For more information, the Old Colony Public Participation Plan is available here: https://oldcolonyplanning.org/wp-content/uploads/2022/12/Old\_Colony\_MPO\_2020-2040\_Long\_Range\_Transportation\_Plan.pdf?ver

The public comment period for this conformity determination commenced on April 19, 2022. During the 21-day public comment period, any comments received were incorporated into this Plan. This allowed ample opportunity for public comment and MPO review of the draft document. The public comment period closed on May 16, 2022 and subsequently, the Old Colony MPO endorsed this air quality conformity determination on May 17, 2022. These procedures comply with the associated federal requirements.

## *Timely Implementation of Transportation Control Measures:*

Transportation Control Measures (TCMs) have been required in the SIP in revisions submitted to EPA in 1979 and 1982. All SIP TCMs have been accomplished through construction or through implementation of ongoing programs. All of the projects have been included in the Region's Transportation Plan (present or past) as recommended projects or projects requiring further study.

## Fiscal Constraint:

Transportation conformity requirements in 40 CFR 93.108 state that TIPs and transportation plans and must be fiscally constrained consistent with U.S. DOT's metropolitan planning regulations at 23 CFR part 450. The Old Colony 2025-2029 Transportation Improvement Program and Vision 2050 Long Range Transportation Plan are fiscally constrained, as demonstrated in this document.

In summary and based upon the entire process described above, the Old Colony MPO has prepared this conformity determination for the 1997 Ozone NAAQS in accordance with EPA's and Massachusetts' latest conformity regulations and guidance. This conformity determination process demonstrates that the FFY 2025-2029 Transportation Improvement Program and the Vision 2050 Long Range Transportation Plan meet the Clean Air Act and Transportation Conformity Rule requirements for the 1997 Ozone NAAQS, and have been prepared following all the guidelines and requirements of these rules during this time period.

Therefore, the implementation of the Old Colony MPO's FFY 2025-2029 Transportation Improvement Program and the Vision 2050 Long Range Transportation Plan are consistent with the air quality goals of, and in conformity with, the Massachusetts State Implementation Plan.

## APPENDICES

- A. FFY 2025-2029 OLD COLONY TIP ENDORSEMENT
- B. §450.336 SELF CERTIFICATION COMPLIANCE STATEMENT 3C PROCESS
- C. SELF-CERTIFICATION COMPLIANCE STATEMENT 310 CMR 60.05: GLOBAL WARMING SOLUTIONS ACT REQUIREMENTS FOR THE TRANSPORTATION SECTOR AND MASSDOT
- D. GLOSSARY OF TERMS AND ACRONYMS
- E. PAVEMENT MANAGEMENT SYSTEM ANALYSIS
- F. OPERATIONS AND MAINTENANCE EXPENDITURES (STATEWIDE AND REGIONAL)
- G. FEDERAL REGIONAL FUNDING TARGETS AND STATEWIDE SUMMARIES
- H. TRANSPORTATION EVALUATION CRITERIA FORMS
- I. ANNUAL LISTING OF OBLIGATED PROJECTS
- J COMPLETED HIGHWAY AND TRANSIT PROJECTS (2015 TO PRESENT); GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS
- K. FFY 2025-2029 GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS
- L. FFY 2025-2029 GATRA TRANSIT ELEMENT
- M. MBTA FEDERAL CAPITAL PROGRAM FFY 2024 AND FFY 2025-2029 PROJECTS LISTING
- N. TWENTY-ONE (21) DAY PUBLIC REVIEW NOTICE OF AVAILABILITY AND PUBLIC COMMENTS
- O. TIP PROJECT REVISION AND DEFINITION PROCEDURES, AND APPROVED ADJUSTMENTS, ADMINISTRATIVE MODIFICATIONS, AND AMENDMENTS

# **APPENDIX A - FFY 2025-2029 OLD COLONY TIP ENDORSEMENT**

# **OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)**

## FFY 2024-2028 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

# ENDORSEMENT OF FFY 2024-2028 OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AMENDMENT 3

This is to certify that the Signatories of the Old Colony Metropolitan Planning Organization, at their Old Colony MPO meeting on May 21, 2024 I hereby approve and endorse the FFY 2024-2028 Old Colony Transportation Improvement Program (TIP) Amendment 3 in its entirety for the Old Colony Region, in accordance with the certified 3C Transportation Planning Process.

the for the

Monica Tibbits-Nutt, Secretary and CEO Massachusetts Department of Transportation (MassDOT); Chair, Old Colony Metropolitan Planning Organization (OCMPO)

5/21/24

Date

# APPENDIX B - §450.336 - SELF CERTIFICATION COMPLIANCE STATEMENT - 3C PROCESS

# Certification of the Old Colony MPO Transportation Planning Process

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

- 1. 23 USC 134, 49 USC 5303, and this subpart.
- 2. Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d) and 40 CFR part 93 and for applicable State Implementation Plan projects.
- 3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21.
- 4. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity.
- Section 11101(e) of the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in U.S. DOT-funded projects.
- 6. 23 CFR part 230, regarding implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts.
- 7. The provisions of the US DOT and of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38.
- 8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving federal financial assistance.
- 9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender.
- 10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.
- 11. Anti-lobbying restrictions found in 49 CFR Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, or a member of Congress, in connection with the awarding of any federal contract.

Monica Tibbits-Nutt, Secretary and Chief Executive Officer Massachusetts Department of Transportation Chair, Old Colony MPO APPENDIX C - SELF-CERTIFICATION COMPLIANCE STATEMENT - 310 CMR 60.05: GLOBAL WARMING SOLUTIONS ACT REQUIREMENTS FOR THE TRANSPORTATION SECTOR AND MASSDOT

## 310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation

This will certify that the Transportation Improvement Program and Air Quality Conformity Determination for the Vison 2050 Old Colony Long Range Transportation Plan is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation. The regulation requires the MPO to:

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

of mohe

Monica Tib<sup>b</sup>its-Nutt, Secretary and CEO Massachusetts Department of Transportation (MassDOT); Chair, Old Colony Metropolitan Planning Organization (OCMPO)

# **APPENDIX D - GLOSSARY OF TERMS AND ACRONYMS**

## **GLOSSARY OF TERMS AND ACRONYMS**

## List of Acronyms

3C:	Comprehensive, Cooperative, and Continuing Planning Process
ADA:	Americans with Disabilities Act
BAT:	Brockton Area Transit Authority
BIL:	Bipartisan Infrastructure Law
CAAA:	Clean Air Act Amendments of 1990
CIP:	Capital Investment Plan
CMAQ:	Congestion Mitigation and Air Quality Improvement Program
CMP:	Congestion Management Process
CTGP:	Community Transit Grant Program
DEP:	Department of Environmental Protection
EIR:	Environmental Impact Report
EJ:	Environmental Justice
ENF:	Environmental Notification Form
EPA:	Environmental Protection Agency
EV:	Electric Vehicle
FAST ACT:	Fixing America's Surface Transportation Act
FHWA:	Federal Highway Administration
FTA:	Federal Transit Administration
GATRA:	Greater Attleboro-Taunton Regional Transit Authority
GHG:	Greenhouse Gases
GWSA:	Global Warming Solutions Act
HPMS:	Highway Performance Monitoring System
HSIP:	Highway Safety Improvement Program
IRI:	International Roughness Index
JTC:	Joint Transportation Committee
LAP:	Language Access Plan
LEP:	Limited English Proficient
LOS:	Level of Service
LRTP:	Long Range Transportation Plan
MCAD:	Massachusetts Commission Against Discrimination
MAP:	Mobility Assistance Program
MARPA:	Massachusetts Association of Regional Planning Agencies
MassDOT:	Massachusetts Department of Transportation
MBTA:	Massachusetts Bay Transportation Authority
MOU:	Memorandum of Understanding
MPO:	Metropolitan Planning Organization
NAAQS:	National Ambient Air Quality Standards
NBIS:	National Bridge Inventory Standards
NFA:	Non-Federal Aid

NFP:	National Freight Program
NHPP:	National Highway Performance Program
NHS:	National Highway System
NOx:	Nitrogen Oxides
0&M:	Operations and Maintenance
P&B:	Plymouth and Brockton Bus Company
PM1:	Safety Performance Measures
PM2:	System Preservation Performance Measures
PM3:	System Performance Measures (Congestion, Reliability, and Emissions)
PMS:	Pavement Management System
POP:	Programming of Projects
PPP:	Public Participation Plan
PRC:	Project Review Committee
PSI:	Pavement Serviceability Index
PTASP:	Public Transit Agency Safety Plan
SGR:	State of Good Repair
SIP:	State Implementation Plan
SMS:	Safety Management System
SOV:	Single Occupant Vehicle
SSCAC:	South Shore Community Action Council
STBG:	Surface Transportation Block Grant Program
TAM	Transit Asset Management
TAMP	Transportation Asset Management Plan
TAN:	Transportation Advisory Network
TAP:	Transportation Alternatives Program
TCM:	Transportation Control Measure
TEC:	Transportation Evaluation Criteria
TERM:	Transit Economic Requirements Model
TIP:	Transportation Improvement Program
TITLE VI:	Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d
TMA:	Transportation Management Area
ULB:	Useful Life Benchmark
VMT:	Vehicle Miles Traveled
VOCs:	Volatile Organic Compounds

# **APPENDIX E - PAVEMENT MANAGEMENT SYSTEM ANALYSIS**

## **Pavement Conditions**

The utilization of a pavement management system (PMS) allows an agency to keep with the principles of objectives-driven, performance-based planning, and supports the goal of maintaining a highway system in a state of good repair. The Old Colony Region has had a Pavement Management System since the 1980's and has updated the system periodically. A PMS is a set of tools and methods that assist decision makers in finding cost effective strategies for evaluating and maintaining pavements in a serviceable condition. It includes a database which is linked spatially to a Geographic Information System (GIS). A road system in good repair helps reduces delays due to long reconstruction periods, enhances freight movement, improves economic vitality, and provides opportunities to improve sidewalk and bicycle facilities through the implementation of the Complete Streets program.

The PMS calculates the rate of deterioration of pavement for streets or segments of streets and the implications of such deterioration for the cost of repairs. The system is based on a Pavement Condition Index (PCI) score (between 0 and 100) for the surveyed road segments, which leads to a recommended repair and cost associated with that repair based on the score. Roads and Road segments are placed in condition categories based on the PCI score, which include "Poor", "Deficient", "Fair", "Good", and "Excellent". Old Colony conducts windshield surveys of the pavement surface periodically, (every four years) for road and highways in the region that are federal aid eligible. As pavement reconstruction and resurfacing projects are completed on federal aid roads through the Old Colony Transportation Improvement Program (TIP), this information is also included in the PMS database. Local roads in the Old Colony Region are not included in the windshield surveys or database unless requested specifically by an OCPC community.

The repairs recommended by the PMS, based on the road condition, include five general default repair strategies. These include:

- 1. Reconstruction This work includes a combination of a number of tasks, including complete removal and replacement of a failed pavement segment, road sub-base replacement (gravel, sand, and aggregates), drainage work, road realignment, and safety hardware (guard rail) installation.
- 2. Rehabilitation The rehabilitation of pavements may include full and partial depth patching, joint and crack sealing, grouting and under-sealing, and grinding and milling in conjunction with overlays over two inches.
- 3. Preventative Maintenance This work may include extensive crack sealing, chip sealing, and micro-surface or overlays less than two inches thick.
- 4. Routine Maintenance This work may include crack sealing and pothole patching.
- 5. No Immediate Maintenance or Repair.

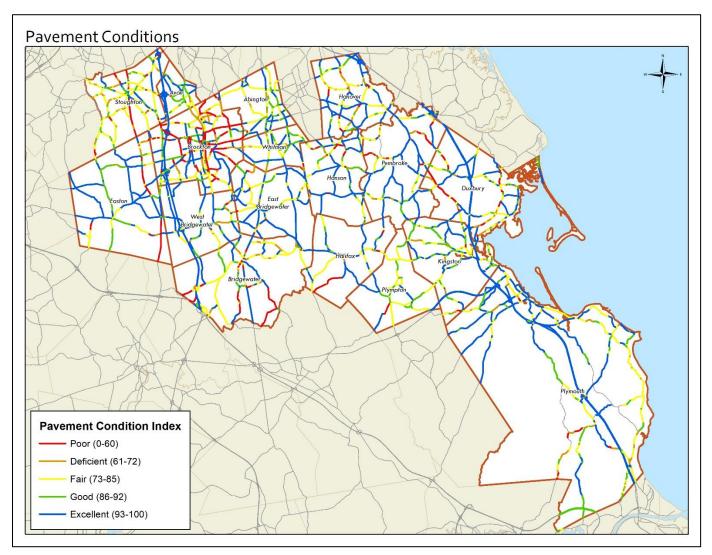
Over the past year, staff has completed a windshield survey of the surface conditions of the 669.34 miles of Federal-Aid eligible roadways in the Old Colony region. The NHS mileage (which is part of the 669.34 Federal-Aid mileage) in the Old Colony Region is 158.59 miles. The estimated cost for improving the Federal Aid eligible roadway network to a state of good repair by the PMS (an overall PCI average of "Good") is \$427,480,493. Table 6-2 shows the Federal-Aid mileage for each community as well as the NHS mileage for each community.

Community	Federal Aid Mileage	NHS Road Mileage
Abington	25.64	7.07
Avon	15.19	4.00
Bridgewater	43.87	11.38
Brockton	85.99	25.59
Duxbury	51.30	13.48
East Bridgewater	34.37	4.42
Easton	44.17	11.16
Halifax	15.45	0.00
Hanson	28.44	4.31
Hanover	37.14	5.70
Kingston	38.00	11.18
Pembroke	39.71	7.28
Plymouth	106.69	22.85
Plympton	12.12	0.58
Stoughton	42.23	12.47
West Bridgewater	29.45	10.44
Whitman	19.58	6.68
Total	669.34	158.59

Table 6-2 Federal Aid Mileage and NHS Mileage in the Old Colony Region

The interstate mileage in the Old Colony Region is I-495 in Bridgewater, which consists of 2.526 miles. The pavement condition of the Interstate mileage varies from "Fair" to "Excellent" except for the bridge portions over Route 24, which have fallen just below the "Fair" condition Index to "Poor".

Figure 6-5 shows existing pavement conditions in the Old Colony Region, and Figure 6-6 shows the Recommended Pavement Repairs for the federal aid roads in the region.



# Figure 6-5 Existing Pavement Conditions Federal-Aid Roads Old Colony Region

# Figure 6-6 Recommended Pavement Repairs (derived from PMS) Federal-Aid Roads Old Colony Region

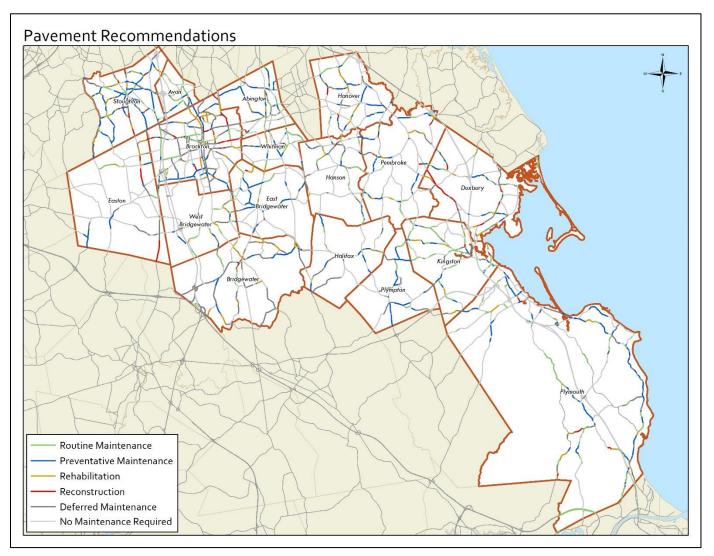
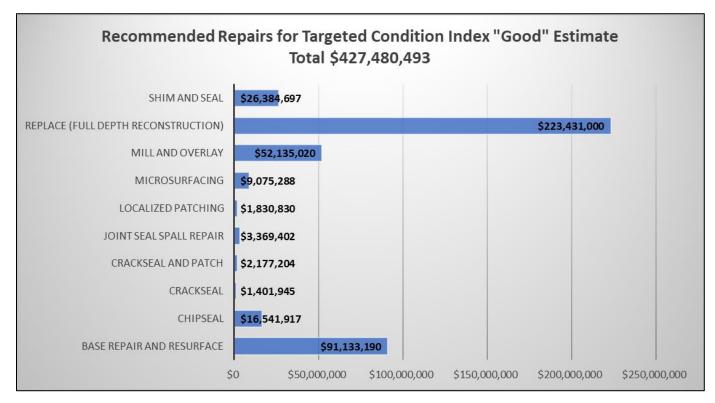


Figure 6-7 shows an estimated improvements scenario costs to bring the Federal-Aid system from an overall condition index of 83, which is in the "Fair" category to an overall average condition of 86, which is in the "Good" category.



## Figure 6-7 PMS Generated Estimate of Costs for Federal-Aid Roads

## Truck Freight

Federal transportation authorization legislation, including Moving Ahead for Progress in the 21st Century Act (MAP-21) passed in 2012, the Fixing America's Surface Transportation Act (FAST Act) passed in 2015, and the most recent in 2021, the Infrastructure Investment and Jobs Act (IIJA), require the tracking of freight performance. Some of the challenges in tracking freight performance include data consistency, accessing multi-modal data, data quality and quantity, developing and maintaining reliable freight transportation models, and understanding the roles of state agencies and MPOs in freight planning and funding. In addition, the proprietary nature of information regarding freight movement among private companies in a competitive environment represents an obstacle in surveying private freight providers.

The federal highway authorization bill of 2012, MAP-21, established a national goal for freight movement and economic activity: "To improve the nation's freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development." The FAST Act of 2015 required each state to develop a state freight plan (covering a five-year forecast period) in order to receive funding under the National Highway Freight Program. The FAST Act also included provisions to improve the condition and performance of the national freight network. Performance measures supporting freight movement include the categories of safety, infrastructure, and system performance. These performance measures were adopted by the MassDOT and the Old Colony MPO:

- ✤ Safety
  - > Number and rate of fatalities on all public roads.
  - > Number and rate of serious injuries on all public roads.
  - > Number of non-motorized fatalities and serious injuries on all public roads.
- ✤ Infrastructure
  - Percent of Interstate pavements in good/poor condition.
  - > Percent of non-Interstate NHS pavements in good/poor condition.
  - > Percent of NHS bridge deck area in good/poor condition.
- System performance
  - Truck Travel Time Reliability Index (TTTRI): This measure is calculated by dividing the 95th percentile truck travel time on a road segment by the 50<sup>th</sup> percentile travel time.

Table 6-3 describes Massachusetts statewide targets adopted for federally required performance measures and the actual performance for travel time reliability on the Interstate Highway System, travel time reliability on the non-Interstate NHS, and TTTRI on the Interstate Highway system. In addition, the Old Colony MPO approved and endorsed the MassDOT System Performance Measure (PM3) 2020 and 2022 Targets in September 2018.

Adopted Performance Measure	2017 (Baseline Value)	2018 Actual	2019 Actual	2019 Target	2020 Actual	2021 Four Year Target	2021 Actual
Percent of person-miles on the Interstate Highway System that are reliable	70%	69%	69.1%	68%		68%	—
Percent of person-miles on the non- Interstate NHS that are reliable			82.4%			80%	—
Truck Travel Time Reliability Index for the Interstate Highway System	1.84	1.89	1.86	1.85		1.85	—

## Table 6-3 - Massachusetts Statewide Performance Measures and Targets\*

(Source: FHWA State Highway Reliability Report for Massachusetts)

Figure 6-8 shows the TTTRI on Massachusetts Highways for the year 2021 based on data available from National Performance Management Research Data Set (INRIX/RITIS). The TTRI for Massachusetts Interstate Highways was 1.61 in 2021, below the set target of 1.85. The Old Colony Region contains a small portion of interstate mileage (approximately 2.526 miles of I-495 in Bridgewater). The TTTRI for the portion of interstate (I-495) in the Old Colony Region for 2017 was 1.55. It was 1.51 in 2019 and 1.33 in 2021.

Non-Interstate NHS mileage in the Old Colony Region is 354.04 miles. The percentage of person-miles on the non-Interstate NHS that are reliable in the Old Colony Region for 2017 was 90.2 percent (based on INRIX/RITIS data), which was above the 80 percent 2021 target. It was 89.5 percent in 2019, and 89.8 percent in 2021. The percent of person-miles on the Interstate Highway System with the Old Colony Region (approximately 2.56 miles of I-495) that are reliable for 2017, 2019, and 2021, was 100 percent for all three of the reporting years (based on the INRIX/RITIS data).

The operation stage includes two main areas of activities: administration and service delivery. Administration refers to the ongoing efforts needed to maintain membership and funding, running the office, and serving the board of directors. Service delivery refers to providing services to members and other selected markets. Monitoring and evaluating the programs and policies are important aspects of the TMA. This feedback provides information needed to refine and promote services. Challenges for TMAs include promoting member interest, promoting TMA services, documenting the TMA's effectiveness, maintaining stable, ongoing funding, and maintaining and developing services.

# APPENDIX F - OPERATIONS AND MAINTENANCE EXPENDITURES (HIGHWAY AND PUBLIC TRANSIT)

# APPENDIX F - OPERATIONS AND MAINTENANCE EXPENDITURES (HIGHWAY AND PUBLIC TRANSIT)



Operating and Maintenance Expenditures as of March 2024						
		Old Colony				
Program Group/Sub Group Part 1: Non-Federal Aid	Est SFY 2024 Spending	Est SFY 2025 Spending	Est SFY 2026 Spending	Est SFY 2027 Spending Est SFY 2028 Spending		
Section I - Non Federal Aid Maintenance Projects - State Bondfunds						
01 - ADA Retrofits						
Sidewalk Construction and Repairs	\$	- \$ -	\$ -	\$-\$-		
02 - Bicycles and pedestrians program						
Bikeway/Bike Path Construction 03 - Bridge	\$	- \$ -	\$-	\$-\$-		
Bridge Maintenance	\$	- \$ -	- \$	\$ <u>-</u> \$-		
Bridge Maintenance - Deck Repairs	\$		\$ -			
Bridge Maintenance - Joints	\$			\$ - \$ -		
Bridge Preservation	\$	- \$ -	\$ -	\$ - \$ -		
Bridge Replacement	\$			\$-\$		
Drawbridge Maintenance	\$	· · · · · · · · · · · · · · · · · · ·		\$ - \$ -		
Painting - Structural	\$	· · · · · · · · · · · · · · · · · · ·	-			
Structures Maintenance 04 - Capacity	\$	- \$ -	- \$	\$-\$-		
Highway Relocation	\$	- \$ -	- \$-	\$ - \$ -		
Hwy Reconstr - Added Capacity	\$		\$ -			
Hwy Reconstr - Major Widening	\$			\$ - \$ -		
05 - Facilities						
Vertical Construction (Ch 149)	\$	- \$	\$ -	\$-\$-		
07 - Intersection Improvements						
Traffic Signals	\$	- \$	\$ -	\$-\$-		
08 - Interstate Pavement Resurfacing Interstate	\$	- \$ -	- \$	\$ - \$ -		
09 - Intelligent Transportation Systems Program	\$	- 5	-	\$ - \$ -		
Intelligent Transportation Systems Frogram	\$	- \$ -	- \$	\$ <u>-</u> \$-		
10 - Non-interstate DOT Pavement Program	, t	•	÷			
Milling and Cold Planing	\$	- \$ -	\$-	\$ - \$ -		
Resurfacing	\$	-	\$ -			
Resurfacing DOT Owned Non-Interstate	\$	- \$ -	\$ -	\$-\$-		
11 - Roadway Improvements						
Asbestos Removal Catch Basin Cleaning	\$ \$		- \$	\$\$ \$\$		
Contract Highway Maintenance	\$			<u> </u>		
Crack Sealing	\$	- \$ -		\$ - \$ -		
Culvert Maintenance	\$	- \$ -	\$ -	\$ - \$ -		
Culvert Reconstruction/Rehab	\$	-		\$		
Drainage	\$	- \$ -	•	\$ - \$ -		
Dredging	\$			<u> </u>		
Guard Rail & Fencing Highway Sweeping	\$ \$	· · · · · · · · · · · · · · · · · · ·		\$\$ \$\$		
Landscaping	\$					
Mowing and Spraying	\$			\$ - \$ -		
Sewer and Water	\$			\$ - \$ -		
Tree Trimming	\$	- \$ -	\$ -	\$ - \$ -		
12 - Roadway Reconstruction						
Hwy Reconstr - No Added Capacity	\$		-			
Hwy Reconstr - Restr and Rehab	\$	-		<u> </u>		
Roadway - Reconstr - Sidewalks and Curbing 13 - Safety Improvements	\$	- \$	\$-	\$-\$-		
Electrical	\$	- \$ -	- \$	\$ <u>-</u> \$-		
Impact Attenuators	\$			<u> </u>		
Lighting	\$			\$-\$-		
Pavement Marking	\$	· · · · · · · · · · · · · · · · · · ·		\$ - \$ -		
Safety Improvements	\$					
Sign Installation/Upgrading	\$		-			
Structural Signing Section I Total:	\$		-			
Section Frotal:	\$	- \$ .	• \$ -	\$ - \$ -		
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding						
Snow and Ice Operations & Materials						
	\$	- \$ -	\$ -	\$ - \$ -		
District Maintenance Payroll						
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	\$		\$			
Section II Total:	\$	- \$ .	-	\$-\$-		
Crond Total NEA	\$	¢		\$-\$-		
Grand Total NFA:	φ	- \$ -	• \$ -	\$-\$-		



	Operating and Mainter	ance Expenditures as of March 2024		
		Old Colony		
Program Group/Sub Group	Est SFY 2024 Spending	Est SFY 2025 Spending	Est SFY 2026 Spending	Est SFY 2027 Spending Est SFY 2028 Spending
Part 2: Federal Aid				
Section I - Federal Aid Maintenance Projects				
01 - ADA Retrofits				
Sidewalk Construction and Repairs	\$ -	\$-	\$ - 5	\$ - \$
02 - Bicycles and pedestrians program			I I	
	\$ -	\$ -	\$ \$	\$ - \$
03 - Bridge		•	<b>↓</b>	•
	\$ -	\$	\$ - 5	\$ - \$
Bridge Maintenance - Deck Repairs	\$ -			s - s
	\$ -			
Bridge Preservation				\$ - \$
Bridge Reconstruction/Rehab				\$ - \$
Drawbridge Maintenance		\$-	\$ - 5	\$ - \$
Painting - Structural	\$ -	\$-	\$ - 5	\$ - \$
Structures Maintenance	\$ -	\$-	\$ - 5	\$ - \$
04 - Capacity			·	
	\$-	\$ -	\$ \$	\$ - \$
05 - Facilities				
	\$ -	\$ -	\$\$	\$
07 - Intersection Improvements		•	• •	• [•
	\$-	\$	\$ - 5	\$ - \$
	\$ -	\$ -	\$ - 3	ə - ə
08 - Interstate Pavement				
	\$-	\$ -	\$ - 5	\$ - \$
09 - Intelligent Transportation Systems Program				
	\$	\$-	\$ - 5	\$ - \$
10 - Non-interstate DOT Pavement Program				
Milling and Cold Planing	\$ -	\$-	\$ - 5	\$ - \$
Resurfacing	\$ -	\$ -	\$ - 5	\$ - \$
Resurfacing DOT Owned Non-Interstate	\$ -	\$ -	\$ - 5	\$ - \$
11 - Roadway Improvements				
	\$ -	\$ <del>-</del>	\$	\$ - \$
	\$ -			\$\$
Contract Highway Maintenance	\$-			\$ - \$
Crack Sealing				φ - φ \$ - \$
· · · · · · · · · · · · · · · · · · ·				
Culvert Maintenance				\$ - \$
	\$-			\$ - \$
Drainage			\$ - 5	
Guard Rail & Fencing	\$ -	\$-	\$ - 5	\$ - \$
Highway Sweeping	\$ -	\$ -	\$ - 5	\$ - \$
Landscaping	\$ -	\$ -	\$ - 5	\$ - \$
Mowing and Spraying	\$ -	\$ -	\$ - 5	\$ - \$
Sewer and Water	\$ -	\$ -	\$ - 9	\$ - \$
Tree Trimming	\$ -		\$ - 5	
12 - Roadway Reconstruction		•	<b>↓</b>	• [•
	\$ -	<u>د</u>	\$	\$ - \$
	Ψ -	Ψ -	Ψ - [	φ - φ
13 - Safety Improvements	¢	¢	\$ - !!	¢
			Ψ.	÷
Impact Attenuators				\$ - \$
Lighting	\$ -			\$ - \$
Pavement Marking	\$	\$ -	\$ - 9	\$ - \$
Safety Improvements	\$ -	\$ -	\$ - 5	\$ - \$
Sign Installation/Upgrading	\$ -	\$ -	\$ - 5	\$ - \$
Structural Signing				\$ - \$
Section I Total:	s -		\$ - 9	
Grand Total NFA:	\$ -	\$	\$ - 9	\$ - \$
				· · · · · · · · · · · · · · · · · · ·

### APPENDIX G - FEDERAL REGIONAL FUNDING TARGETS AND STATEWIDE SUMMARIES



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2025									
Section 1A / Regionally Pric	oritized Projects						\$12,301,382	\$10,120,385	\$2,180,997
Intersection Improvements	608195	Old Colony	Easton	EASTON- CORRIDOR IMPROVEMENTS ON ROUTE 138 INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE 138 (WASHINGTON STREET) AND ELM STREET	5	CMAQ	\$4,000,000	\$3,200,000	\$800,000
Intersection Improvements	608195	Old Colony	Easton	EASTON- CORRIDOR IMPROVEMENTS ON ROUTE 138 INCLUDING INTERSECTION IMPROVEMENTS AT ROUTE 138 (WASHINGTON STREET) AND ELM STREET	5	STBG	\$5,508,592	\$4,406,874	\$1,101,718
Intersection Improvements	609052	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT CENTRE STREET (ROUTE 123) AND PLYMOUTH STREET	5	HSIP	\$2,792,790	\$2,513,511	\$279,279
					CM	AQ Programmed	\$4,000,000	\$3,200,000	\$800,000
					H	SIP Programmed	\$2,792,790	\$2,513,511	\$279,279
					ST	BG Programmed	\$5,508,592	\$4,406,874	\$1,101,718
				Total Programmed	for Old Colony	Region Projects*	\$12,301,382	\$10,120,385	\$2,180,997
				Program Targe	et for Old Colony	Region Projects	\$13,628,243	\$10,902,594	\$2,725,649
				Target Funds Available	e for Old Colony	Region Projects	\$1,326,861	\$782,209	\$544,652
Section 2A / State Prioritize	d Reliability Proje	ects					\$4,640,307	\$4,176,276	\$464,031
Safety Improvements	610714	Multiple	Multiple	BOURNE TO BRAINTREE- GUIDE AND TRAFFIC SIGN REPLACEMENT ON A SECTION OF ROUTE 3	5	HSIP	\$4,640,307	\$4,176,276	\$464,031
Section 2B / State Prioritize	d Modernization	Projects					\$9,206,820	\$7,365,456	\$1,841,364

STID: 2025 2020 (D)



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Roadway Reconstruction	613358	Old Colony	Stoughton	STOUGHTON- CORRIDOR IMPROVEMENTS ON ROUTE 138, FROM CANTON T.L. TO CHARLES AVENUE (PHASE 2)	5	NHPP	\$9,206,820	\$7,365,456	\$1,841,364

Old Colony Region Total Program Summary \$26,148,509 \$21,662,117 \$4,486,392



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2026									
Section 1A / Regionally Price	oritized Projects						\$11,434,934	\$9,647,023	\$1,787,911
Intersection Improvements	607818	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT LYMAN STREET/GROVE STREET/SUMMER STREET & REPLACEMENT OF GROVE STREET BRIDGE, B-25-005, OVER SALISBURY PLAIN RIVER	5	STBG	\$6,444,173	\$5,155,338	\$1,288,835
Intersection Improvements	609440	Old Colony	Abington	ABINGTON- INTERSECTION IMPROVEMENTS AT HANCOCK STREET AND CHESTNUT STREET	5	HSIP	\$4,990,761	\$4,491,685	\$499,076
					H	SIP Programmed	\$4,990,761	\$4,491,685	\$499,076
					ST	BG Programmed	\$6,444,173	\$5,155,338	\$1,288,835
				Total Programmed	for Old Colony	Region Projects*	\$11,434,934	\$9,647,023	\$1,787,911
				Program Targe	et for Old Colony	Region Projects	\$13,294,825	\$10,635,860	\$2,658,965
				Target Funds Availabl	le for Old Colony	Region Projects	\$1,859,891	\$988,837	\$871,054
Section 2B / State Prioritize	d Modernization	Projects					\$5,935,197	\$5,341,677	\$593,520
Intersection Improvements	611979	Old Colony	Avon	AVON- INTERSECTION IMPROVEMENTS AT ROUTE 28, SPRING STREET AND HARRISON BOULEVARD	5	HSIP	\$5,935,197	\$5,341,677	\$593,520
Section 3A / Non-Federal A	id Funded						\$54,144,179	\$0	\$54,144,179
Bridge On-system NHS	607349	Multiple	Multiple	NORWELL- PEMBROKE- BRIDGE REPLACEMENT, N-24-004=P-05-008, ROUTE 3 (NB & SB) OVER NORTH RIVER	5	NGBP	\$54,144,179	\$0	\$54,144,179

Old Colony Region Total Program Summary \$71,514,310 \$14,988,701

10 \$14,988,701 \$56,525,609

----



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2027									
Section 1A / Regionally Price	oritized Projects						\$7,385,593	\$6,317,430	\$1,068,163
Intersection Improvements	606002	Old Colony	Multiple	KINGSTON- DUXBURY- INTERSECTION IMPROVEMENTS AT ROUTE 3 RAMPS (NB/SB) AND ROUTE 3A (TREMONT STREET)	5	STBG	\$3,296,038	\$2,636,830	\$659,208
Paadway Paganetruction	612525	Old Colony	Abington	ABINGTON- INTERSECTION IMPROVEMENTS, RANDOLPH STREET AND RICHARD A FITTS DRIVE (ROUTE 139) AT CHESTNUT STREET AND OLD RANDOLPH STREET	5	HSIP	\$4,089,555	\$3,680,600	\$408,956
Roadway Reconstruction	012323	Old Colorly	Abiligion	RANDOLPH STREET			. , ,	,	. ,
						SIP Programmed	\$4,089,555	\$3,680,600	\$408,956
					ST	BG Programmed	\$3,296,038	\$2,636,830	\$659,208
				Total Programme	d for Old Colony	Region Projects*	\$7,385,593	\$6,317,430	\$1,068,163
				Program Targ	et for Old Colony	Region Projects	\$16,462,014	\$13,169,611	\$3,292,403
				Target Funds Availab	le for Old Colony	Region Projects	\$9,076,421	\$6,852,181	\$2,224,240
Section 1B / Earmark or Dis	scretionary Grant	Funded Projects	i				\$36,960,397	\$36,960,397	\$0
Bridge Off-system Local NB	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14 -003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	5	BROFF	\$36,960,397	\$36,960,397	\$0
Section 2A / State Prioritize	ed Reliability Proje	ects					\$41,096,042	\$32,876,834	\$8,219,208
Bridge Off-system	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14 -003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	5	STBG-BR-Off	\$41,096,042	\$32,876,834	\$8,219,208

Old Colony Region Total Program Summary \$85,442,032 \$76,154,661

\$9,287,372



								STIP: :	2025 - 2029 (D)
Program	MassDOT Project ID	МРО	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2028									
Section 1A / Regionally Pric	oritized Projects						\$15,256,612	\$12,205,290	\$3,051,322
Intersection Improvements	612262	Old Colony	Brockton	BROCKTON- INTERSECTION IMPROVEMENTS AT ROUTE 123 (BELMONT STREET), PEARL STREET AND STONEHILL STREET	5	STBG	\$8,361,220	\$6,688,976	\$1,672,244
Roadway Reconstruction	612769	Old Colony	Hanover	HANOVER- CORRIDOR IMPROVEMENTS ON ROUTE 139 (HANOVER STREET) AT MAIN STREET, CENTER STREET AND SILVER STREET	5	STBG	\$6,895,392	\$5,516,314	\$1,379,078
					ST	BG Programmed	\$15,256,612	\$12,205,290	\$3,051,322
				Total Programmed	for Old Colony	Region Projects*	\$15,256,612	\$12,205,290	\$3,051,322
				Program Targe	et for Old Colony	Region Projects	\$16,771,876	\$13,417,501	\$3,354,375
				Target Funds Available	e for Old Colony	Region Projects	\$1,515,264	\$1,212,211	\$303,053
Section 2A / State Prioritize	d Reliability Proje	ects					\$16,406,773	\$13,125,418	\$3,281,355
Bridge Off-system	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14 -003 (438), POWDER POINT AVENUE OVER DUXBURY BAY KINGSTON- BRIDGE REPLACEMENT, K-	5	STBG-BR-Off	\$2,084,213	\$1,667,370	\$416,843
Bridge Off-system	608615	Old Colony	Kingston	01-014, SMITHS LANE OVER ROUTE 3 (PILGRIM HIGHWAY)	5	STBG-BR-Off	\$14,322,560	. , , ,	\$2,864,512
Section 2B / State Prioritize	d Modernization	Projects					\$18,293,993	\$16,464,594	\$1,829,399
Intersection Improvements	612770	Old Colony	Abington	ABINGTON- INTERSECTION IMPROVEMENTS AT ROUTE 18 (BEDFORD STREET) AND ROUTE 123 (BROCKTON AVENUE)	5	HSIP	\$5,387,025	\$4,848,323	\$538,703
Intersection Improvements	613269	Old Colony	Duxbury	DUXBURY- INTERSECTION IMPROVEMENTS AT ROUTE 53 AND FRANKLIN STREET	5	HSIP	\$8,152,648	\$7,337,383	\$815,265



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Intersection Improvements	611981	Old Colony	Stoughton	STOUGHTON- INTERSECTION IMPROVEMENTS AT CANTON STREET (ROUTE 27), SCHOOL STREET AND SUMMER STREET	5	HSIP	\$4,754,320	\$4,278,888	\$475,432

Old Colony Region Total Program Summary \$49,957,378 \$41,795,302 \$8,162,076



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Federal Fiscal Year 2029									
Section 1A / Regionally Pric	oritized Projects						\$14,735,159	\$12,477,005	\$2,258,154
Intersection Improvements	611976	Old Colony	East Bridgewater	EAST BRIDGEWATER- INTERSECTION IMPROVEMENTS AT HIGHLAND STREET AND NORTH BEDFORD STREET (ROUTE 18)	5	STBG	\$4,060,000	\$3,248,000	\$812,000
Intersection Improvements	613277	Old Colony	Stoughton	STOUGHTON- INTERSECTION IMPROVEMENTS AT ROUTE 27 (PARK STREET) AND TURNPIKE STREET	5	STBG	\$3,786,383	\$3,029,106	\$757,277
Intersection Improvements	613599	Old Colony	Hanover	HANOVER- INTERSECTION IMPROVEMENTS AT COLUMBIA ROAD (ROUTE 53/139) AND BROADWAY	5	HSIP	\$6,888,776	\$6,199,898	\$688,878
					HS	SIP Programmed	\$6,888,776	\$6,199,898	\$688,878
					STE	BG Programmed	\$7,846,383	\$6,277,106	\$1,569,277
				Total Programmed	d for Old Colony I	Region Projects*	\$14,735,159	\$12,477,005	\$2,258,154
				Program Targe	et for Old Colony	Region Projects	\$17,087,936	\$13,670,349	\$3,417,587
				Target Funds Availabl	le for Old Colony	Region Projects	\$2,352,777	\$1,193,344	\$1,159,433
Section 1B / Earmark or Dis	cretionary Grant	Funded Projects					\$23,911,289	\$23,911,289	\$0
Bridge Off-system Local NB	613292	Old Colony	Bridgewater	BRIDGEWATER- BRIDGE REHABILITATION, B-23-001 (44H), VERNON STREET OVER TAUNTON RIVER	5	BROFF	\$23,911,289	\$23,911,289	\$0
Section 2A / State Prioritize	d Reliability Proje	ects					\$19,348,213	\$15,478,570	\$3,869,643
Bridge Off-system	612006	Old Colony	Duxbury	DUXBURY- BRIDGE REPLACEMENT, D-14 -003 (438), POWDER POINT AVENUE OVER DUXBURY BAY	5	STBG-BR-Off	\$12,877,588	\$10,302,070	\$2,575,518
Bridge Off-system	613132	Old Colony	West Bridgewater	WEST BRIDGEWATER- BRIDGE REPLACEMENT, W-18-004, FOREST STREET OVER TOWN RIVER	5	STBG-BR-Off	\$5,081,844	\$4,065,475	\$1,016,369



								STIP: 2	2025 - 2029 (D)
Program	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Total Programmed Funds	Federal Funds	Non-Federal Funds
Bridge Off-system	613306	Old Colony	East Bridgewater	EAST BRIDGEWATER- BRIDGE REPLACEMENT, E-01-010 (BVT) POND STREET OVER SATUCKET RIVER	5	STBG-BR-Off	\$1,388,781	\$1,111,025	\$277,756
Section 2B / State Prioritize	ed Modernization I	Projects					\$2,000,000	\$1,600,000	\$400,000
Roadway Reconstruction	609520	Old Colony	Multiple	BROCKTON- ABINGTON- PEDESTRIAN AND BICYCLE IMPROVEMENTS ON ROUTE 123	5	NHPP	\$2,000,000	\$1,600,000	\$400,000

Old Colony Region Total Program Summary \$59,994,661 \$53,466,864

\$6,527,797



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2025									
RTA Facility & System Modernization	T00118	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	5339D	\$1,080,000	\$1,080,000		
RTA Facility & System Modernization	T00118	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	RTACAP	\$270,000		\$270,000	
RTA Facility & Vehicle Maintenance	RTD0011343	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011343	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011344	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$160,000	\$160,000		
RTA Facility & Vehicle Maintenance	RTD0011344	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$40,000		\$40,000	
RTA Facility & Vehicle Maintenance	RTD0011345	BAT		BAT - VEH OVERHAUL (4)	5307	\$900,000	\$900,000		
RTA Facility & Vehicle Maintenance	RTD0011345	BAT		BAT - VEH OVERHAUL (4)	RTACAP	\$900,000		\$900,000	
RTA Facility & Vehicle Maintenance	RTD0011346	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011346	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011348	BAT		BAT - TERMINAL, INTERMODAL	5307	\$1,600,000	\$1,600,000		
RTA Facility & Vehicle Maintenance	RTD0011348	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$400,000		\$400,000	
RTA Vehicle Replacement	RTD0011347	BAT		BAT - ACQUIRE SUPPORT VEHICLES (2)	5307	\$120,000	\$120,000		
RTA Vehicle Replacement	RTD0011347	BAT		BAT - ACQUIRE SUPPORT VEHICLES (2)	RTACAP	\$30,000		\$30,000	
					5307 Programmed	\$2,860,000	\$2,860,000		
					5339D Programmed	\$1,080,000	\$1,080,000		
				RI	FACAP Programmed	\$1,660,000		\$1,660,000	
				Total Programmed for Brockton A	Area Transit Projects	\$5,600,000	\$3,940,000	\$1,660,000	

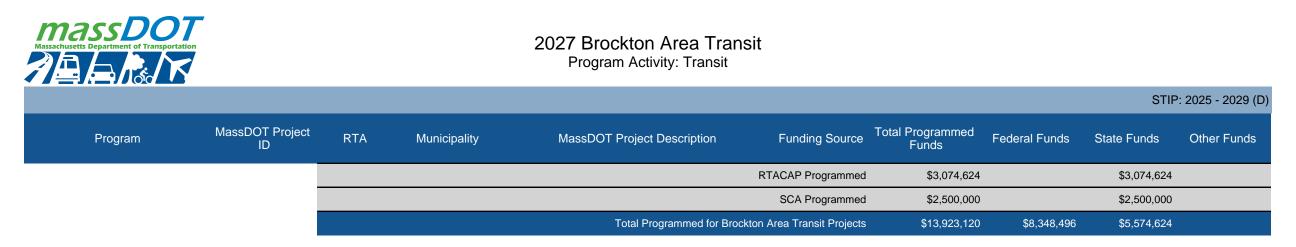


								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2026									
RTA Facility & Vehicle Maintenance	RTD0011350	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$140,000	\$140,000		
RTA Facility & Vehicle Maintenance	RTD0011350	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$35,000		\$35,000	
RTA Facility & Vehicle Maintenance	RTD0011352	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011352	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011353	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$2,150,000	\$2,150,000		
RTA Facility & Vehicle Maintenance	RTD0011353	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$2,150,000		\$2,150,000	
RTA Facility & Vehicle Maintenance	RTD0011354	BAT		BAT - TERMINAL, INTERMODAL	5307	\$440,000	\$440,000		
RTA Facility & Vehicle Maintenance	RTD0011354	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$110,000		\$110,000	
RTA Fleet Upgrades	RTD0011366	BAT		BAT - BUY REPLACEMENT 40-FT BUS ELECTRIC (5)	5339D	\$5,296,240	\$5,296,240		
RTA Fleet Upgrades	RTD0011366	BAT		BAT - BUY REPLACEMENT 40-FT BUS ELECTRIC (5)	RTACAP	\$1,324,060		\$1,324,060	
RTA Fleet Upgrades	RTD0011367	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	5339D	\$1,120,000	\$1,120,000		
RTA Fleet Upgrades	RTD0011367	BAT		BAT - PURCHASE MISC ELEC/POWER EQUIP	RTACAP	\$280,000		\$280,000	
RTA Vehicle Replacement	RTD0011351	BAT		BAT - ACQUIRE SUPPORT VEHICLE (1)	5307	\$48,000	\$48,000		
RTA Vehicle Replacement	RTD0011351	BAT		BAT - ACQUIRE SUPPORT VEHICLE (1)	RTACAP	\$12,000		\$12,000	
					5307 Programmed	\$2,818,000	\$2,818,000		
					5339D Programmed	\$6,416,240	\$6,416,240		
				RT	ACAP Programmed	\$3,921,060		\$3,921,060	
				Total Programmed for Brockton A	Area Transit Projects	\$13,155,300	\$9,234,240	\$3,921,060	



Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2027									
Operating	T00001	BAT		BAT- OPERATING ASSISTANCE	5307	\$2,500,000	\$2,500,000		
Operating	T00001	BAT		BAT- OPERATING ASSISTANCE	SCA	\$2,500,000		\$2,500,000	
RTA Facility & System Modernization	T00119	BAT		BAT - ACQUIRE STATIONARY FARE COLLECTION EQUIP	5307	\$2,150,000	\$2,150,000		
RTA Facility & System Modernization	T00119	BAT		BAT - ACQUIRE STATIONARY FARE COLLECTION EQUIP	RTACAP	\$2,150,000		\$2,150,000	
RTA Facility & System Modernization	T00120	BAT		BAT - Acquire Misc. Elec/Power Equip	5339D	\$1,080,000	\$1,080,000		
RTA Facility & System Modernization	T00120	BAT		BAT - Acquire Misc. Elec/Power Equip	RTACAP	\$270,000		\$270,000	
RTA Facility & Vehicle Maintenance	RTD0011355	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011355	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011356	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011356	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011357	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000		
RTA Facility & Vehicle Maintenance	RTD0011357	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	RTD0011358	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000		
RTA Facility & Vehicle Maintenance	RTD0011358	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	RTD0011359	BAT		BAT - REHAB RENOVATE - BUS PARK & RIDE LOT	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	RTD0011359	BAT		BAT - REHAB RENOVATE - BUS PARK & RIDE LOT	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	RTD0011360	BAT		BAT - PURCHASE MISC COMMUNICATIONS EQUIP SYSTEMS	5307	\$60,000	\$60,000		
RTA Facility & Vehicle Maintenance	RTD0011360	BAT		BAT - PURCHASE MISC COMMUNICATIONS EQUIP SYSTEMS	RTACAP	\$15,000		\$15,000	
RTA Vehicle Replacement	T00121	BAT		BAT - BUY REPLACEMENT 35-FT BUS ELECTRIC (2)	5339D	\$2,118,496	\$2,118,496		
RTA Vehicle Replacement	T00121	BAT		BAT - BUY REPLACEMENT 35-FT BUS ELECTRIC (2)	RTACAP	\$529,624		\$529,624	
					5307 Programmed	\$5,150,000	\$5,150,000		
					5339D Programmed	\$3,198,496	\$3,198,496		

STID: 2025 2020 (D)





								STIP	P: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2028									
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	5307	\$3,900,000	\$3,900,000		
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	SCA	\$3,900,000		\$3,900,000	
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000		
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000		
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	5307	\$40,000	\$40,000		
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	RTACAP	\$10,000		\$10,000	
					5307 Programmed	\$4,340,000	\$4,340,000		
				R	TACAP Programmed	\$110,000		\$110,000	
					SCA Programmed	\$3,900,000		\$3,900,000	
				Total Programmed for Brockton A	Area Transit Projects	\$\$,350,000	\$4,340,000	\$4,010,000	



								STIP	P: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2029									
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	5307	\$4,000,000	\$4,000,000		
Operating	T00127	BAT		BAT- OPERATING ASSISTANCE	SCA	\$4,000,000		\$4,000,000	
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	5307	\$40,000	\$40,000	(	
RTA Facility & Vehicle Maintenance	T00122	BAT		BAT - BUY ASSOC CAP MAINT ITEMS	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	5307	\$40,000	\$40,000	1	
RTA Facility & Vehicle Maintenance	T00123	BAT		BAT - REHAB RENOVATE MAINTENANCE FACILITY	RTACAP	\$10,000		\$10,000	
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	5307	\$240,000	\$240,000	1	
RTA Facility & Vehicle Maintenance	T00124	BAT		BAT - TERMINAL, INTERMODAL	RTACAP	\$60,000		\$60,000	
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	5307	\$80,000	\$80,000	1	
RTA Facility & Vehicle Maintenance	T00125	BAT		BAT - ACQUIRE MISC SUPPORT EQUIPMENT	RTACAP	\$20,000		\$20,000	
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	5307	\$40,000	\$40,000	í T	
RTA Facility & Vehicle Maintenance	T00126	BAT		BAT - TERMINAL, INTERMODAL (TRANSIT)	RTACAP	\$10,000		\$10,000	
					5307 Programmed	\$4,440,000	\$4,440,000		
				R	TACAP Programmed	d \$110,000		\$110,000	
					SCA Programmed	\$4,000,000		\$4,000,000	
				Total Programmed for Brockton A	Area Transit Projects	\$\$,550,000	\$4,440,000	\$4,110,000	

### **APPENDIX H - TRANSPORTATION EVALUATION CRITERIA (TEC) FORMS**

OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)

# OLD COLONY TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

# DRAFT TRANSPORTATION EVALUATION CRITERIA (TEC)

**DECEMBER 2023** 

PREPARED BY: OLD COLONY PLANNING COUNCIL 70 SCHOOL STREET BROCKTON, MASSACHUSETTS UNDER MASSDOT CONTRACT 123116

### Introduction

Effective with the development of the Old Colony FFY 2025 – 2029 Transportation Improvement Program (TIP), Old Colony Planning Council has developed an updated set of Transportation Evaluation Criteria (TEC), and scoring system to be used in the process of developing the Old Colony Metropolitan Planning Organization's Transportation Improvement Program (TIP).

During TIP development, all projects that have been approved by the MassDOT Project Review Committee (PRC) are evaluated using these Transportation Evaluation Criteria. The MPO staff uses the Transportation Evaluation Criteria results, along with project readiness information, available funding, and other pertinent information to develop a Draft TIP. The Old Colony MPO releases the Draft TIP for a 21-Day Public Review and Comment Period. Following the 21-Day Public Review and Comment Period, the Old Colony MPO considers the comments received, and then endorses the TIP if there are no significant changes.

The proposed updated Transportation Evaluation Criteria replaces an 18-point system used by Old Colony Planning Council in recent years with a 100-point system that scores projects by specific defined criteria in the following categories:

- System Preservation 30 Points
- Safety 30 Points
- Mobility 10 Points
- Economic Impact 10 Points
- Environmental and Health Impact 10 Points
- Community Support and Consistency with Policy 10 Points

The updated Transportation Evaluation Criteria is designed to be clearly designed and fully transparent, considering all modes of transportation and users in transportation projects. They also take into consideration recent initiatives and policies, such as Complete Streets and MPO adopted Performance Targets.

### Old Colony TIP Transportation Evaluation Criteria (TC)

Table 1 outlines how PRC approved projects are scored in six categories.

#### Table 1: Outline of Old Colony TIP Transportation Evaluation Criteria Scoring Categories and Potential Points

Category	Evaluation Criterion	Total Potential Points
System Preservation /	Primary Asset Condition	30
State of Good Repair	Enhancements to Secondary Assets	
	Use of Modern Technology to Improve Efficiency	
	Incorporates Transit Elements into Design	
Safety	Motorist crash history and anticipated improvement	30
	Non-Motorist crash history and anticipated improvement	
	Proven Safety Measures	
Mobility	Existing Motorist Congestion	10
	Effect on Mobility and Accommodation for Non-Motorists	
	Effect on System Connectivity and Access	
Economic Impact	Access to or within a regionally designated economic development area	10
	Access to or within a business district	
	Connectivity between housing, employment, and commerce	
	Effect on freight network	
Environmental Effect	Effect on Wetlands, Wildlife or Other Natural Resources	10
	Protects or Enhances Water Quality by Improving Stormwater Management	
	Effect on air quality and GHG emissions	
	Improves Coastal Resiliency	
	Enhances local open space	
	Incorporates Healthy Transportation Options	
Community Support and	Project has Community Support, Identified in Local Plans, and an Active Design	10
Consistency with Policy	Project Identified in Regional Plan and/or Consistent with Regional Policy	
	Consistent with PM1, PM2, PM3, and/or TAM	
	Project Supports Federal and State Policy	
	Equity	
	Total Possible Score	100

### System preservation and Modernization Scoring

Table 2 outlines how projects are scored based on system preservation and modernization criteria.

#### Table 2: System Preservation and Modernization Criteria and Potential Scoring

System Preservation Criterion	Factor	Points	
	Poor or failing / substantial improvement	12	
Primary asset condition / effect on	Fair / moderate improvement	8	
condition	Good / minor improvement	4	
	Excellent / no improvement	0	
	Potential Primary Asset Points	12	
	Poor or failing / substantial improvement	8	
Enhancements to Secondary Assets	Fair / moderate improvement	5	
(Sidewalks, etc.)	Good / minor improvement	2	
	Excellent / no improvement	0	
	Potential Secondary Asset Points	8	
	Use of innovative technology and/or	_	
	incorporation of traffic counting technology	5	
Use of modern technology to improve	Improvement in technology to current best		
efficiency	practices	2	
	Maintain/repair existing technology	1	
	Not applicable	0	
	Potential Modern Technology Points	5	
	Incorporates significant improvements to transit		
	infrastructure,	5	
Incorporatos transit alamante into	accessibility and/or operational		
Incorporates transit elements into design	Incorporates minor transit improvements	3	
design	Improves operations on a transit route	1	
	No related improvements to transit	0	
access/operations are expected			
	Potential Transit Elements Points	5	
Total Potential	System Preservation and Modernization Scoring	30	

## Safety Scoring

Table 3 outlines how projects are scored based on safety criteria.

#### Table 3: Safety Criteria and Potential Scoring

Safety Criterion	Factor	Points
	HSIP Eligible Location	10
	Location is Reginal Top 100 High Crash Location or engaged in a safety plan	7
	and project will improve motorist safety	/
Meteriat erach history and anticipated	Demonstrated safety problem and safety improvement is anticipated with	4
Motorist crash history and anticipated safety impact	project	4
safety impact	No demonstrated safety problem, but safety improvement is anticipated with	3
	project	5
	No Safety Improvement Anticipated	0
	Project may adversely effect safety	-1
	Potential Motorist Safety Points	10
	HSIP Bicycle or Pedestrian Cluster	10
	Location is Reginal Top 100 High Crash Location or engaged in a safety plan	7
	and project will improve non-motorist safety	/
Non-Motorist crash history and	Demonstrated safety problem and non-motorist safety improvement is	4
anticipated safety impact	anticipated with	-
anticipated survey impact	No demonstrated crash problem, but project is anticipated to	3
	improve non-motorist safety	
	No safety improvement anticipated	0
	The project many adversely affect non-motorist safety	-1
	Potential Non-Motorist Safety Points	10
	Characteristics of the location make it a primary risk location and the project	
	will implement a proven safety countermeasure	10
	Characteristics of the location make it a secondary risk location and the	
	project will implement a proven safety countermeasure	
	While not a primary or secondary risk location, the location provides access	
Systematic Safety Improvements/Proven	to vulnerable roadway users, such as schools, transit stops and senior	_
Safety	destinations and the project will implement a proven safety countermeasure	7
Countermeasures		
	No safety improvement anticipated	
	While not a primary or secondary risk location, the location provides access	
	to vulnerable roadway users, such as schools, transit stops and senior	4
	destinations and the project will implement a proven safety countermeasure	
	No safety improvement anticipated	0
	Potential Systematic Safety Improvement Points	10
	Total Potential Safety Scoring	30

### Mobility Scoring

Table 4 outlines how projects are scored based on mobility criteria.

#### Table 4: Mobility Criteria and Potential Scoring

Mobility Criterion	Factor	Points		
	Location identified in the CMP network/ substantial improvement	4		
	Significant existing / substantial improvement	3		
Existing motorist congestion /	Significant existing / moderate or minor improvement	2		
effect on motorist congestion	Minimal existing / minor improvement	1		
	No Change	0		
	Negative effect	-1		
Potential Motorist Congestion Points				
	Substantial improvement	3		
Effect on mobility /	Moderate improvement	2		
accommodation of non-	Minimal improvement	1		
motorists	No effect for non-motorists	0		
	Negative effect on mobility / accommodation	-1		
	Potential Non-Motorist Mobility Points	3		
Effect on connectivity / access	Substantial improvement to connectivity through the corridor	3		
(emphasis placed on key	Moderate improvement to connectivity	2		
emergency and evacuation	W Minimal effect on connectivity	1		
reoutes)	No effect on connectivity	0		
	Negative effect on connectivity	-1		
Potential Connectivity and Access Points				
	Total Potential Mobility Scoring	10		

### Economic Development Scoring

Table 5 outlines how projects are scored based on economic impact criteria.

#### Table 5: Economic Impact Criteria and Potential Scoring

Economic Criterion	Factor	Points
	Substantial improvement	3
Effect on access to or within a	Moderate improvement	2
regionally-designated	Minor improvement	1
economic development area	No effect	0
	Negative effect	-1
	Potential Points	3
Effect on access to or within a	Substantial or moderate improvement	2
	Minor improvement	1
locally-designated business district	No effect	0
district	Negative effect	-1
	Potential Points	2
Effect on connections between	Substantial improvement	3
	Moderate improvement	2
housing, job, cultural centers, and essential services within	Minor improvement	1
	No effect	0
and beyond the region Negative effect		-1
	Potential Points	3
Effect on the ability of the	Substantial or moderate improvement	2
region's freight network to	Minor improvement	1
handle current and future	No effect	0
freight needs	Negative effect	-1
	Potential Points	2
То	tal Potential Economic Impact Scoring	10

## Environmental and Health Scoring

Table 6 outlines how projects are scored based on environmental and community health impact criteria.

#### Table 6: Environmental and Community Health Impact Criteria and Potential Scoring

Environmental and Health Criterion	Factor	Points		
	Anticipated improvement	2		
Effect on wetlands, wildlife, or	Minor contribution to preservation	1		
other resource protection	No anticipated impact or negative impacts adequately mitigated	0		
	Negative impact	-1		
	Potential Effect on Natural Resources Points	2		
Effect on water quality through	Anticipated improvement in stormwater management and treatment	2		
stormwater management and treatment with an emphasis on	Anticipated improvement in stormwater management	1		
for nitrogen	No anticipated impact or negative impacts adequately mitigated	0		
loi intiogen	Negative impact	-1		
Potential Effect on Water Quality Points				
	Significant, quantifiable decrease in GHG anticipated	2		
Effect on air quality / GHG	Minor, quantifiable or qualitative decrease in GHG anticipated	1		
emission	No effect on GHG anticipated	0		
	Anticipated increase in GHG	-1		
	Potential Effect on Air Quality Points	2		
	Project vulnerable area with resilient design	2		
Coastal Resiliency / Sea Level	Project is not in a vulnerable area but includes with resilient design elements	1		
Rise Vulnerability / Low Lying Roads	Project not in vulnerable area and not special consideration given to resilient design Project in a vulnerable area and is not a resilient design	0 -1		
	Potential Effect on Coastal Resiliency Points	2		
	Anticipated improvement	1		
Effect on cultural resources or	No anticipated impact or negative impacts adequately mitigated	0		
open space	Negative impact	-1		
Potential Effect on Open Space Points				
Increase in healthy transportation options				
Healthy Transportation Options	No anticipated impact or negative impacts adequately mitigated	0		
	Negative impact	-1		
Potential Effect on Healthy Transportation Options Points				
	Total Potential Environmental and Health Scoring	10		

## Policy and Support Scoring

Table 7 outlines how projects are scored based on policy and support criteria.

#### Table 7: Policy and Support Criteria and Potential Scoring

Policy and Support Criterion	Factor	Points
	Stated Support for Project by Officials and Project Has Active Design	3
	Stated Support but No Active Design	2
Local Plans / Community Support	Project identified in existing local plan	1
	Neutral	0
	Project has community opposition	-1
	Potential Local Sand Community Support Points	3
	Project specifically identified in Regional Plan	2
Project identified in Regional Plan and/or	Project Supports Regional Plan Policies, including PM1, PM2, PM3, an	1
Consistent with Regional Policy	Neutral	0
	Inconsistent with Regional Plan and Policies	-1
	Potential Regional Support and Consistency Points	2
Droject supports Federal or State (including	Project specifically identified in a existing Federal or State Plan	2
Project supports Federal or State (including MassDOT) policies and goals not accounted	Consistent with Federal or State Policies or Principles	1
for in other criteria	Neutral	0
for in other citteria	Inconsistent with Federal or State Policies or Principles	-1
	Potential State and Federal Consistency Points	2
	Project is located within an Environmental Justice area and will	
	have a positive impact on population	3
	Project is of a regional significance that will serve individuals and	
Equity	improve access for Environmental Justice populations	1
	Project is isolated and not located within or adjacent to an	
	Environmental Justice area	0
	Project in a vulnerable area and is not a resilient design	-1
	Potential Equity and Environmental Justice Points	3
	Total Potential Policy and Support Scoring	10

### Project Evaluation Schedule

Table 8 outlines the schedule for evaluating and scoring projects. All projects are initially scored in the project initiation process following approval by MassDOT's Project Review Committee (PRC). However, as project design and other factors affecting project evaluation may change from the time a project is initiated, projects are subject to re-evaluation and updated scoring and circumstance necessitates.

Table 8: Project Evaluation Schedule	Table	8: I	Proje	ct Eva	luation	Schedule
--------------------------------------	-------	------	-------	--------	---------	----------

Initial Evaluation	Following PRC Approval
When Projects May	• New Project Details Known (Functional Design Report / Pre-25%
Be Re-Evaluated	Design)
	Significant Change in Scope / Design has Occurred
	Significant Change in Community Support / Active Design has
	Occurred
	Significant Change in Existing conditions has Occurred
	Project Has Been Inactive for 3 TIP Development Cycles

Community Abington Project Name Intersection Improvements at Hancock Street and Chestnut Street Project Number 609440 Date Scored 2/28/2024

Category	Score
System Preservation	20
Safety	20
Mobility	8
Economic Impact	1
<b>Environment and Health</b>	6
Policy and Support	6
Total Score	61

Community Abington Project Name Intersection Improvements Route 139 at Chestnut Street Project Number 609520 Date Scored 2/28/2024

Category	Score
System Preservation	13
Safety	24
Mobility	8
Economic Impact	4
<b>Environment and Health</b>	4
Policy and Support	5
Total Score	58

Community Abington Project Name Intersection Improvements at Route 18 and Route 139 Project Number 612770 Date Scored 2/28/2024

Category	Score
System Preservation	14
Safety	18
Mobility	9
Economic Impact	4
<b>Environment and Health</b>	3
Policy and Support	7
Total Score	55

Community Avon Project Name Corridor Improvements on Route 28 Project Number 610804 Date Scored 2/28/2024

Category	Score
System Preservation	14
Safety	10
Mobility	2
Economic Impact	2
<b>Environment and Health</b>	3
Policy and Support	2
Total Score	33

Community Avon Project Name Intersection Improvments at Roue 27, East/West Spring, and Harrison Boulevard Project Number 611979 Date Scored 2/28/2024

Category	Score
System Preservation	14
Safety	21
Mobility	8
Economic Impact	6
<b>Environment and Health</b>	3
Policy and Support	5
Total Score	57

Community Brockton Project Name Intersection Improvements at Crescent St (Rt 27) at Quincy St and Massasoit Project Number 606143 Date Scored 2/28/2024

Category	Score
System Preservation	19
Safety	17
Mobility	6
Economic Impact	3
<b>Environment and Health</b>	6
Policy and Support	8
Total Score	59

Community Brockton

Project Name Intersection Improvements at Lyman Street/Summer Street/Grove Street and Grove Street Bridge Replacement Project Number 607818

Date Scored 2/28/2024

Category	Score
System Preservation	25
Safety	15
Mobility	6
Economic Impact	5
<b>Environment and Health</b>	4
Policy and Support	9
Total Score	64

Community Brockton Project Name Intersection Improvments at Route 123 (Centre Street) and Plymouth Street Project Number 609052 Date Scored 2/28/2024

Category	Score
System Preservation	23
Safety	24
Mobility	9
Economic Impact	5
<b>Environment and Health</b>	5
Policy and Support	9
Total Score	75

Community Brockton Project Name Intersection Improvments at Centre Street (Route 123), Cary, and Lyman Project Number 609410 Date Scored 2/28/2024

Category	Score
System Preservation	16
Safety	27
Mobility	6
Economic Impact	3
<b>Environment and Health</b>	3
Policy and Support	9
Total Score	64

Community Brockton Project Name Intersection Improvements at Route 123 (Belmont Street) and Pearl Street Project Number 612262 Date Scored 2/28/2024

Category	Score
System Preservation	16
Safety	24
Mobility	9
Economic Impact	2
<b>Environment and Health</b>	3
Policy and Support	7
Total Score	61

Community Brockton Project Name Improvements on Forest Avenue Project Number 612526 Date Scored 2/28/2024

Category	Score
System Preservation	20
Safety	10
Mobility	5
Economic Impact	2
<b>Environment and Health</b>	3
Policy and Support	6
Total Score	46

Community Brockton / Abington Project Name Bicycle and Pedestrian Improvements on Route 123 Project Number 609520 Date Scored 2/28/2024

Category	Score
System Preservation	22
Safety	13
Mobility	7
Economic Impact	3
<b>Environment and Health</b>	3
Policy and Support	5
Total Score	53

Community Duxbury Project Name Intersection Improvements at Route 3 Ramps and Route 3A (Tremont Street) Project Number 606002 Date Scored 2/28/2024

Category	Score
System Preservation	16
Safety	13
Mobility	10
Economic Impact	5
<b>Environment and Health</b>	3
Policy and Support	6
Total Score	53

Community Duxbury Project Name Intersection Improvements at Route 53 and Franklin Street Project Number 613269 Date Scored 2/28/2024

Category	Score
System Preservation	16
Safety	20
Mobility	8
Economic Impact	1
<b>Environment and Health</b>	3
Policy and Support	5
Total Score	53

**Community** East Bridgewater

Project Name Intersection Improvements Bedford Street (Route 18) at West Street (Route 106) and East Street

Project Number 611968

Date Scored 2/29/2024

Category	Score
System Preservation	14
Safety	11
Mobility	8
Economic Impact	3
<b>Environment and Health</b>	3
Policy and Support	4
Total Score	43

Community East Bridgewater Project Name Intersection Improvements at North Bedford Street (Route 18) and Highland Street Project Number 611976 Date Scored 2/29/2024

Category	Score
System Preservation	21
Safety	24
Mobility	9
Economic Impact	8
<b>Environment and Health</b>	4
Policy and Support	5
Total Score	71

Community Easton Project Name Corridor Improvements Route 138 Including Intersection of Elm Street Project Number 608195 Date Scored 2/29/2024

Category	Score
System Preservation	20
Safety	15
Mobility	9
Economic Impact	3
<b>Environment and Health</b>	5
Policy and Support	5
Total Score	57

Community Easton Project Name Resurfacing and Related Work Route 138 Project Number 608585 Date Scored 2/29/2024

Category	Score
System Preservation	20
Safety	13
Mobility	5
Economic Impact	6
<b>Environment and Health</b>	2
Policy and Support	2
Total Score	48

Community Easton Project Name Improvements on Foundry Street (Route 106/123) Project Number 612269 Date Scored 2/29/2024

Category	Score
System Preservation	13
Safety	16
Mobility	5
Economic Impact	4
<b>Environment and Health</b>	5
Policy and Support	4
Total Score	47

Community Easton Project Name Reconstruction and Related Work Route 138 and Route 123 Project Number 612617 Date Scored 2/29/2024

Category	Score
System Preservation	18
Safety	18
Mobility	7
Economic Impact	7
<b>Environment and Health</b>	3
Policy and Support	4
Total Score	57

Community Easton

**Project Name** Intersection Improvements at Route 138 and Turnpike, Route 138 and Purchase, and Turnpike and Purchase **Project Number** 612975

**Date Scored** 3/2/2024

Score
22
24
9
3
4
5
67

Community Hanover Project Name Corridor Improvements Route 139 Project Number 612769 Date Scored 3/2/2024

Category	Score
System Preservation	18
Safety	16
Mobility	8
Economic Impact	4
<b>Environment and Health</b>	6
Policy and Support	5
Total Score	57

Community Hanover Project Name Route 53 at Broadway Project Number 613599 Date Scored 3/2/2024

Category	Score
System Preservation	22
Safety	24
Mobility	0
Economic Impact	4
<b>Environment and Health</b>	4
Policy and Support	5
Total Score	59

Community Hanson Project Name Corridor Improvements on Route 14 Project Number 608506 Date Scored 3/2/2024

Category	Score
System Preservation	20
Safety	16
Mobility	4
Economic Impact	3
<b>Environment and Health</b>	7
Policy and Support	4
Total Score	54

Community Stoughton Project Name Intersection Improvements Canton Street (Route 27) at School Street Project Number 611981 Date Scored 3/10/2024

Category	Score
System Preservation	22
Safety	24
Mobility	10
Economic Impact	5
<b>Environment and Health</b>	4
Policy and Support	9
Total Score	74

Community Stoughton Project Name Intersection Improvements at Park Street (Route 27) and Turnpike Street Project Number 613277 Date Scored 3/10/2024

Category	Score
System Preservation	21
Safety	18
Mobility	8
Economic Impact	9
<b>Environment and Health</b>	5
Policy and Support	4
Total Score	65

Community Whitman Project Name Corridor Improvements South Avenue (Route 14) Project Number 613643 Date Scored 3/10/2024

Category	Score
System Preservation	16
Safety	24
Mobility	5
Economic Impact	3
<b>Environment and Health</b>	3
Policy and Support	3
Total Score	54

# APPENDIX I - FFY 2023 ANNUAL LISTING OF OBLIGATED PROJECTS (ALSO POSTED TO OLD COLONY PLANNING COUNCIL WEBSITE)

# OLD COLONY METROPOLITAN PLANNING ORGANIZATION (MPO)

# ANNUAL LISTING OF PROJECTS WITH FEDERAL FUNDING OBLIGATED FOR FEDERAL FISCAL YEAR 2023

December 21, 2023

PREPARED BY: OLD COLONY PLANNING COUNCIL (OCPC) 70 SCHOOL STREET BROCKTON, MASSACHUSETTS

www.oldcolonyplanning.org

PREPARED IN COOPERATION WITH THE BROCKTON AREA TRANSIT AUTHORITY, THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (#118969), THE FEDERAL HIGHWAY ADMINISTRATION, AND THE FEDERAL TRANSIT ADMINISTRATION

## FUNDING

The preparation of this report has been financed in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code, under Contract #123116.

## DISCLAIMER

The views and opinions of the Old Colony Planning Council expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation.

## Annual Listing of Projects with Federal Funding Obligated for Federal Fiscal Year 2023

In accordance with 23 CFR § 450.334, Old Colony Planning Council (OCPC) is making the Federal Fiscal Year (FFY) 2023 Annual Listing of Obligated Projects available for public review. The Annual Listing of Projects provides the projects for which federal funds have been obligated in FFY 2023 (October 1, 2022 - September 30, 2023).

Metropolitan Planning Organizations (MPOs) are required, under the authorized transportation bill, Bipartisan Infrastructure Law (BIL), to publish an annual listing of projects which funds have been obligated in the preceding year as a record of project delivery and progress report for public information and disclosure. In addressing BIL requirements, this report lists all transportation projects in the region that were obligated during FFY 2023.

The obligated list of projects must be developed through a cooperative effort with the metropolitan planning organization (MPO), state and public transportation operators responsible for tracking project authorizations and obligations spent during the immediately preceding fiscal year.

Obligation is defined as the Federal government's legal commitment to pay the Federal share of a project's cost. An obligated project is one that has been authorized by the federal agency and funds have been obligated. Projects for which funds have been obligated are not necessarily initiated or completed in the program year, and the amount of the obligation will not necessarily equal the total cost of the project.

Please contact William McNulty at 774-539-5103 or <u>wmcnulty@ocpcrpa.org</u> with any questions.

## FFY 2023 ANNUAL LISTING OF OBLIGATED PROJECTS PER 23 CFR 450.334

MassDOT Project ID	MassDOT Project Description ▼	Advertis. / Obligation Date	FFY 2023 Programmed Federal Fund	FFY 2023 Obligated Federal Fund	Remaining Advance Construction Fund
OLD CC	DLONY				
605294	DUXBURY- BRIDGE REPLACEMENT, D-14-010 (48H & 48J), ROUTE 3 (PILGRIM HIGHWAY) NB/SB OVER FRANKLIN STREET	25-Mar-23	\$24,460,386.40	\$26,730,000.60	\$0.00
607403	STOUGHTON- CORRIDOR IMPROVEMENTS ON ROUTE 138	26-Aug-23	\$6,752,826.40	\$6,752,826.40	\$2,272,517.38
608279	STOUGHTON- INTERSECTION IMPROVEMENTS AND RELATED WORK AT CENTRAL STREET, CANTON STREET AND TOSCA DRIVE	26-Aug-23	\$4,194,114.40	\$4,219,923.24	\$0.00
	OLD COLONY TO	OTAL :	\$35,407,327.20	\$37,702,750.24	\$2,272,517.38

#### Transportation Improvement Program (TIP)

**Project Listing** 

FFY 2023 ANNUAL LISTING OF OBLIGATED PROJECTS PER 23 CFR 450.334													
FTA Progra	am Project Number	Transit Agency	FTA Activity Line Item	Project Description	Carryover (unobligated)	Federal Funds	State Funds	TDC	Local Funds	Total Cost	Grant #	Obligation Date	FFY 2023 Obligated Federal Funds
5307													
5307 5307	RTD0011330 RTD0011331	Brockton Area Transit Authority Brockton Area Transit Authority	114220 111240	BAT - ACQUIRE MISC SUPPORT EQUIPMENT BAT - BUY ASSOC CAP MAINT ITEMS		\$80,000 \$40,000	\$148,887 \$38,683	\$0 \$0	\$0	\$78,683	MA-2023-014 MA-2023-014	5/25/2023 5/25/2023	\$40,000
5307	RTD0011332	Brockton Area Transit Authority	114206	BAT - ACQUIRE-SHOP EQUIPMENT		\$400,000	\$195,000	\$0	\$0	\$595,000	MA-2023-014	5/25/2023	\$400,000
5307	RTD0011333	Brockton Area Transit Authority	113403	BAT - TERMINAL, INTERMODAL (TRANSIT) BAT - REHAB RENOVATE MAINTENANCE		\$80,000	\$67,300	\$0	\$0	\$147,300	MA-2023-014	5/25/2023	\$80,000
5307	RTD0011334	Brockton Area Transit Authority	114402	FACILITY		\$400,000	\$590,000	\$0			MA-2023-014	5/25/2023	
5310					Subtotal	\$1,000,000	\$1,039,870	\$0	\$0	\$2,039,870			\$1,000,000
5310													
5310	BAT011500	Brockton Area Transit Authority	111215	5310 - BAT Buy Replacement Type E Vans		\$254,400	\$0	\$0	\$0	\$318,000	MA-2021-035-01	9/22/2023	FFY20/FFY21
5310	BAT011501	Brockton Area Transit Authority	111215	BAT - Buy Replacement Type Ca Van Brockton Area Arc, Inc BUY VAN FOR SVC		\$96,800	\$0	\$0	\$0	\$121,000	MA-2021-035-01	9/22/2023	FFY20/FFY21
5310	BAT011502	Brockton Area Transit Authority	111315	EXPANSION (5310) Type Ca Brockton Area Arc, Inc BUY VAN FOR SVC		\$96,800	\$0	\$0	. ,	\$121,000	MA-16-X019	N/A	FFY23
5310	BAT011551	Brockton Area Transit Authority	111315	EXPANSION (5310)	Subtotal	\$62,883 \$510,883	\$0 \$0	\$0 \$0		\$78,604 \$638,604	MA-16-X019	N/A	FFY22

Grants awarded in TraMS (October 1, 2022 to September 30, 2023)

## APPENDIX J - COMPLETED HIGHWAY AND TRANSIT PROJECTS (2015 TO PRESENT; GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS)

## Old Colony Region Transportation Improvement Program

	, , , , , , , , , , , , , , , , , , , ,						
MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼	Fiscal Year of Contract Award (2015 and forward)▼
603660	BRIDGEWATER- SIGNAL & INTERSECTION IMPROVEMENTS AT STATE ROUTE 18 & HIGH STREET	\$ 1,259,683	Quantified	94,020.393	Quantified Decrease in Emissions from Traffic Operational Improvement		2015
601644	BROCKTON- RESURFACING & RELATED WORK ON WEST ELM STREET, FROM WARREN AVENUE TO WEST STREET (6,800 FT.)	\$ 5,022,800	Quantified	358,738.067	Quantified Decrease in Emissions from Traffic Operational Improvement		2015
606071	EASTON- SIGNAL & INTERSECTION IMPROVEMENTS @ ROUTE 138 (TURNPIKE STREET) AND ROUTE 106 (FOUNDRY STREET)	\$ 1,377,744	Quantified	59,301.843	Quantified Decrease in Emissions from Traffic Operational Improvement		2015
604957	PEMBROKE- RECONSTRUCTION ON ROUTE 14, FROM THE HANSON T.L. TO WASHINGTON STREET (ROUTE 53) AC PHASE 1 OF 2	\$ 9,188,746	Quantified	729.893	Quantified Decrease in Emissions from Traffic Operational Improvement		2016
608085	AVON - INSTALLATION OF A MEDIAN BARRIER ON HARRISON BOULEVARD	\$ 2,305,120	Quantified	989,860.450	Quantified Decrease in Emissions from Traffic Operational Improvement		2016
606036	BROCKTON - SIGNAL & INTERSECTION IMPROVEMENTS @ ROUTE 123 (BELMONT STREET)/LINWOOD STREET/ LORRAINE AVENUE	\$ 4,646,985	Quantified	73,162.015	Quantified Decrease in Emissions from Other Improvements		2016
607175	PLYMOUTH - RESURFACING & RELATED WORK ON ROUTE 3	\$ 15,745,980	Qualitative		Qualitative Decrease in Emissions		2016
605038	PLYMOUTH- RECONSTRUCTION OF TAYLOR AVENUE, FROM WHITE HORSE ROAD TO MANOMET POINT ROAD, INCLUDES BRIDGE REPLACEMENT OF P-13-010	\$ 8,726,144	Quantified	2,011.100	Quantified Decrease in Emissions from Other Improvements		2017
607438	EASTON- INTERSECTION IMPROVEMENTS AT WASHINGTON STREET (ROUTE 138) AND UNION STREET	\$ 2,659,239	Quantified	326,293.197	Quantified Decrease in Emissions from Traffic Operational Improvement		2018
607337	PEMBROKE- INTERSECTION IMPROVEMENTS AND RELATED WORK AT WASHINGTON STREET (ROUTE 53) AND PLEASANT STREET	\$ 2,264,709	Quantified	170,714.225	Quantified Decrease in Emissions from Traffic Operational Improvement		2018
606264	PLYMOUTH- IMPROVEMENTS ON OBERY STREET, FROM SOUTH STREET TO A.A. CARANCI WAY/PLYMOUTH NORTH H.S. DRIVE INTERSECTION	\$ 6,657,553	Quantified	583,159.967	Quantified Decrease in Emissions from Traffic Operational Improvement		2018
607860	WHITMAN- TRAFFIC SIGNAL IMPROVEMENTS & RELATED WORK ON BEDFORD STREET (ROUTE 18) AT 2 LOCATIONS: AUBURN STREET (ROUTE 14) & TEMPLE STREET (ROUTE 27)		Quantified	133,711.328	Quantified Decrease in Emissions from Traffic Operational Improvement		2018
608143	ABINGTON/ BROCKTON - NORTH QUINCY STREET, CHESTNUT STREET, AND BOUNDARY AVENUE ROUNDABOUT AND GEOMETRIC IMPROVEMENTS	\$ 1,218,906	Quantified	505,089.454	Quantified Decrease in Emissions from Traffic Operational Improvement		2019
607941	EAST BRIDGEWATER - RESURFACING AND SIDEWALK CONSTRUCTION ON BEDFORD STREET (ROUTE 18), FROM WHITMAN STREET (ROUTE 106) TO CENTRAL STREET	\$ 7,763,091	Quantified	1,525.300	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure		2019
608088	BROCKTON - CORRIDOR IMPROVEMENTS ON ROUTE 123 (BELMONT STREET), FROM ANGUS BEATON DRIVE TO WEST STREET	\$ 7,350,265	Quantified	205,184.676	Quantified Decrease in Emissions from Traffic Operational Improvement		2020
608266	PEMBROKE - RESURFACING AND RELATED WORK ON ROUTE 53	\$ 2,725,075	Qualitative		Qualitative Decrease in Emissions		2020
607217	EASTON - ROUTE 123 (DEPOT STREET) RECONSTRUCTION FROM NEWELL CIRCLE TO ROUTE 138	\$ 9,018,229	Quantified	132,862.633	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure		2021
608086	AVON - INTERSECTION IMPROVEMENTS AT HARRISON BOULEVARD AND POND STREET	\$ 4,969,007	Quantified	989,860.450	Quantified Decrease in Emissions from Traffic Operational Improvement		2021
60882 <del>9</del>	STOUGHTON- IMPROVEMENTS AT WEST ELEMENTARY SCHOOL (SRTS)	\$ 3,171,443	Qualitative		Qualitative Decrease in Emissions		2021
608496	AVON - STOUGHTON - PAVEMENT PRESERVATION AND RELATED WORK ON ROUTE 24	\$ 7,339,593	Qualitative		No assumed impact/negligible impact on emissions		2022
600380	PEMBROKE - REHABILITATION OF ROUTE 36 (CENTER STREET) FROM ROUTE 27 TO ROUTE 14	\$ 10,160,995	Quantified	3,776.201	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure		2022

## Old Colony Region Transportation Improvement Program

FTA Activity Line Item ▼	Transit Agency ▼	Project Description ▼	Total	Cost ▼	GHG Analysis Type ▼	GHG CO₂ Impact (kg/yr)▼	GHG Impact Description ▼	Additional Description ▼	Fiscal Year Programmed (2015 and forward)▼
111201	BAT	BUY REPLACEMENT 40-FT BUS (4)	\$	1,960,000	Quantified	9,383.318	Quantified Decrease in Emissions from Bus Replacement		2016
111202	BAT	BUY REPLACEMENT 35-FT BUS (4)	\$	2,000,000	Quantified	9,899.523	Quantified Decrease in Emissions from Bus Replacement		2016
111201	BAT	BAT ACQUIRE REPLACEMENT 40-FT BUS (4	\$	2,050,000	Quantified	20,577.935	Quantified Decrease in Emissions from Bus Replacement		2018
111302	BAT	BAT - ACQUIRE 35-FT BUS FOR EXPANSION (2) HYBRID	\$	1,400,000	Quantified	23,611.723	Quantified Decrease in Emissions from New/Additional Transit Service		2018
111202	BAT	BAT ACQUIRE REPLACEMENT 35-FT BUS (6	\$	3,000,000	Quantified	30,866.902	Quantified Decrease in Emissions from Bus Replacement		2018
111203	BAT	BUY REPLACEMENT 30-FT BUS (2) BSU	\$	500,000	Quantified	188,480.027	Quantified Decrease in Emissions from Bus Replacement		2019
111203	BAT	BUY REPLACEMENT 30-FT BUS (3) BSU	\$	450,000	Quantified	280,178.756	Quantified Decrease in Emissions from Bus Replacement		2020
111201	BAT	BUY REPLACEMENT 40-FT BUS (4)	\$	2,250,000	Quantified	246,174.712	Quantified Decrease in Emissions from Bus Replacement		2021
111201	BAT	BUY REPLACEMENT 40-FT BUS (3)	\$	1,500,000	Quantified	273,484.385	Quantified Decrease in Emissions from Bus Replacement		2022

# APPENDIX K - FFY 2025-2029 GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS



Project name:	
Meeting date:	Requesting party:
Project ID (if applicable):	Project sponsor:
Estimated cost:	Estimated CMAQ funding:
Year of programming (if applicable):	Analysis type:

Description of project / Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

**Air quality improvements /** Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

VOC	NOx	СО	CO <sub>2</sub>
kg/year	kg/year	kg/year	kg/year
First voor sost par ka			
First year cost per kg			



Froject name. Froject 009052 - Intersection improvements at Centre Street and Frymouth Street								
Meeting date:	03/04/2020	Requesting party	Old Colony MF	PO				
Project ID (if applicable):	609052	Project sponsor:	Municipality					
Estimated cost:	\$ 1,680,000	Estimated CMAQ	funding:	\$ 1,680,000				
Year of programming (if applicable):	2025	Analysis type:	Intersection / 7	Traffic Flow				

Project name: Project 609052 - Intersection Improvements at Centre Street and Plymouth Street

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential,
- downtown commercial, highway-oriented commercial, etc.)

- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

The intersection of Centre Street (Route 123) and Plymouth Street is a heavily congested un-siganlized intersection on the eastern edge of downtown Brockton adjacent to the Brockton Commuter Rail Station, Brockton Area Transit (BAT) Intermodal Centre, and a housing development. Route 123 is a major arterial traveling through the center of Brockton, and connecting eastern Plymouth County to western Plymouth County. Demand from both side street approaches of Plymouth Street is high, and drivers encounter difficulty entering the intersection particularly for those turning left or straight across. In addition to vehicular demand, a large volume of pedestrians traverse this intersection commuting the the transit facilities and a nearby elementary school. The proposed project will reduce the width of the travel lanes of Centre Street, allowing improved bicycle facilities and reducing crossing width for pedestrians. The project will install traffic signals including a protected eastbound left turn , and include pedestrian controls.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

Air quality analysis of proposed improvements indicate the project will yield substantial reductions in VOC, NOx, CO, and CO2.

VOC kg/year	Decrease	NOx kg/year	Decrease	CO kg/year	Decrease	CO <sub>2</sub> kg/year	Decrease
	25.59		64.75		346.37		359,724.85
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year o	ost per kg
	\$ 65,642		\$ 25,944		\$ 4,850.00		\$ 5.00
	. ,		. ,		. ,		·

	ED BOXES ONL	_Y							
TIP YEAR:	2026								
MPO:	Old Colony	,		r	Municipality:	Brockt	on		
Project:	607818 - Im	provements and	Relanted Work Su	Immer Grov	e and Lyman				
Step 1: Calcul	ate Existing AN	I Peak Hour Total In	tersection Delay in Seco	onds:					
-	-	Turns	Total Thru	L	Total	Right-Turns		Total	Total
Street Name	Dir (Vol / PH	IF) X delay per =	move. + (Vol / PHF	, ,	move. + (Vol	,			= approach
0		veh	delay	per veh	delay	· · · ·	er veh	delay	delay
Summer St Summer St	NB         85         0.           SB         2         0.	<u>.91 11.6</u> = .66 9.7 =	$1,084 + 332 0.9^{-2}$ 29 + 260 0.66		8,318 + 3,821 +	200 0.91 27 0.66	22.8 = 9.7 =	5,011 397	,
Grove St	-	.93 18.2 =	431 + 339 0.93		6,634 +	133 0.93	3.3 =	472	,
Lyman St	_	89 10.2 =	1,685 + 393 0.89		5,211 +	6 0.89	11.8 =	80	,
						Total Inters	ection Delay	/Seconds	= 33,172
Step 2: Calcul	-		ersection Delay in Seco		Tatal	Dist to Trans		<b>T</b> - 4 - 1	Tatal
Street Name		Turns IF) X delay per =	Total Thru move. + (Vol / PHF		Total move. + (Vol	Right-Turns	(delay =	Total move.	Total = approach
Slieel Name		veh	delay	per veh	delay	,	erveh	delay	<ul> <li>approach delay</li> </ul>
Summer St	NB 98 0.		1,422 + 219 0.9		2,912 +	207 0.91	12.1 =	2,752	
Summer St		.93 10.6 =	34 + 395 0.93		4,502 +	24 0.93	10.6 =	274	,
Grove St		.92 16.7 =	200 + 371 0.92		6,734 +	146 0.92	3.1 =	492	
Lyman St		78 10.6 =	2,419 + 470 0.78		11,087 +	1 0.78	18.4 =	24	, -
						Total Inters	ection Delay	/Seconds	= 32,852
Step 3: The sp	readsheet auto	omatically chooses t	he peak hour with the lo	onger total inte	ersection delay fo	r the next step i	n the analys	sis.	
Peak Hour (AN	I/PM) AM	-	Total Intersecti	on Dolay:	33,172				
	ate the existing	 I AM F		· ·					
Step 4: Calcul	-	j ANN F Turns	Peak Hour Total Intersed Total Thru	-	Total	Right-Turns		Total	Total
Street Name		IF) X delay per =	move. + (Vol / PHF		move. + (Vol	U U	(delay =		= approach
	2 (10, 1	veh	delay	per veh	delay	,	er veh	delay	delay
Summer St	NB 85 0.	.91 34.7 =	3,241 + 332 0.9		1,496 +	200 0.91	4.1 =	, 901	
Summer St	SB 2 0.				.,				
		12.4 -	38 + 260 0.66	6 12.4 =	4,885 +	27 0.66	12.4 =	507	,
Grove St		.00 12.4 =	821 + 339 0.93		4,885 + 12,394 +		12.4 = 4.1 =	507 586	= 5,430
	EB 22 0.			3 34.0 =	-				= 5,430 = 13,801
Grove St Lyman St	EB 22 0.	93 34.7 =	821 + 339 0.93	3 34.0 =	12,394 +	133 0.93 6 0.89	4.1 =	586 113	= 5,430 = 13,801 = 5,566
Lyman St	EB 22 0. WB 147 0.	93 34.7 =	821 + <u>339</u> 0.93 2,362 + <u>393</u> 0.89	3 34.0 = 9 7.0 =	12,394 + 3,091 +	133 0.93 6 0.89 Total Inters	4.1 = 16.7 = ection Delay	586 113 /Seconds	= 5,430 = 13,801 = 5,566 = <b>30,434</b>
Lyman St Step 5: Calcul	EB220.WB1470.ate vehicle dela	93 34.7 89 14.3 = ay in hours per day: (	821 + <u>339</u> 0.93 2,362 + <u>393</u> 0.89 Delay in seconds X	3 34.0 = 9 7.0 = Hours per day	12,394 + 3,091 +	133 0.93 6 0.89 Total Inters Seconds per ho	4.1 = 16.7 = ection Delay, ur =	586 113 /Seconds Delay in	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day
Lyman St <b>Step 5: Calcul</b> Existing peak h	EB     22     0.       WB     147     0.       ate vehicle delation     0.	93 34.7 89 14.3 = ay in hours per day: ( delay (	821 + <u>339</u> 0.93 2,362 + <u>393</u> 0.89 Delay in seconds X 33,172 X	3 34.0 = 9 7.0 = Hours per day 10 )	12,394 + 3,091 +	133         0.93           6         0.89           Total Inters           Seconds per ho           3600	4.1 = 16.7 = ection Delay, ur = =	586 113 /Seconds Delay in 92	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
Lyman St <b>Step 5: Calcul</b> Existing peak h Peak hour inter	EB     22     0.       WB     147     0.       ate vehicle delation     147     0.	93         34.7           89         14.3           ay in hours per day:         (           (         (           delay         (           / improvements         (	821 + 339 0.93 2,362 + 393 0.89 Delay in seconds X 33,172 X 30,434 X	3 34.0 = 9 7.0 = Hours per day	12,394 + 3,091 +	133         0.93           6         0.89           Total Inters           Seconds per ho           3600           3600	4.1 = 16.7 = ection Delay, ur = = =	586 113 /Seconds Delay in 92 84	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
Lyman St <b>Step 5: Calcul</b> Existing peak h Peak hour inter	EB     22     0.       WB     147     0.       ate vehicle delation     147     0.	93 34.7 89 14.3 = ay in hours per day: ( delay (	821 + 339 0.93 2,362 + 393 0.89 Delay in seconds X 33,172 X 30,434 X	3 34.0 = 9 7.0 = Hours per day 10 )	12,394 + 3,091 +	133         0.93           6         0.89           Total Inters           Seconds per ho           3600           3600	4.1 = 16.7 = ection Delay, ur = =	586 113 /Seconds Delay in 92	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
Lyman St <b>Step 5: Calcul</b> Existing peak h Peak hour inter	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         section delay w/       147       0.         S 2014a emission       147       0.	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         (	821 + 339 0.93 2,362 + 393 0.89 Delay in seconds X 33,172 X 30,434 X speed:	3 34.0 = 9 7.0 = Hours per day 10 ) 10 )	12,394 + 3,091 + y) / / /	133         0.93           6         0.89           Total Inters           Seconds per ho           3600           3600	4.1 = 16.7 = ection Delay, ur = = = A or PM	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
Lyman St <b>Step 5: Calcul</b> Existing peak h Peak hour inter	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         section delay w/       147       0.         S 2014a emission       147       0.	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020	3 34.0 9 7.0 = Hours per day 10 ) 10 ) or Win	12,394 + 3,091 + y) / / 2020	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM	4.1 = 16.7 = ection Delay, ur = = = A or PM 2020	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
_yman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         rsection delay w/       147       0.         S       2014a emission	93 34.7 89 14.3 = ay in hours per day: ( delay ( / improvements ( on factors for idling 2020 Summer VOC Factor grams/hour 0.249	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630	3 34.0 9 7.0 = Hours per day 10 ) 10 ) or Win	12,394 + 3,091 + y) / / 2020 ter CO Factor	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra	4.1 = 16.7 = ection Delay, ur = = = A or PM 2020 r CO2 Factor	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         rsection delay w/       147       0.         S       2014a emission	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ams per day:	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) cr Win	12,394 + 3,091 + y) / / 2020 ter CO Factor grams/hour <b>3.569</b>	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38	4.1 16.7 = ection Delay, ur = = A or PM 2020 r CO2 Factor ms/hour 565.610	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         rsection delay w/       147       0.         S       2014a emission	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         1.249	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ams per day: Summer VOC Emissi	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) or Win g ons Summe	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38 Summe gra 38	4.1 16.7 = ection Delay, ur = = M or PM 2020 r CO2 Factor ms/hour 565.610 CO Emissions	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE	EB       22       0.         WB       147       0.         ate vehicle delation       147       0.         nour intersection       147       0.         section delay w/       147       0.         S 2014a emission       2014a emission         ate net emission       147       0.	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) or Win g ons Summe	12,394 + 3,091 + y) / / 2020 ter CO Factor yrams/hour 3.569 Pr NOx Emissions ograms/day	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38 Summe gra 38	4.1 16.7 = ection Delay, ur = = M or PM 2020 r CO2 Factor ms/hour 565.610 CO Emissions grams/day	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissia kilograms/day
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit	EB       22       0.         WB       147       0.         ate vehicle delation resection       147       0.         our intersection       147       0.         section delay w/s       2014a emission         ate net emission       140         ions       147       147	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         Hours per Day           92.1         92.1	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOx Factor grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) or Win g ons Summe	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38 Summe gra 38	4.1       =         16.7       =         ection Delay,       =         ur       =         =       =         A or PM       2020         r CO2 Factor       ms/hour         565.610       CO Emissions         CO Emissions       grams/day         0.329       0.329	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem	EB       22       0.         WB       147       0.         ate vehicle delation resection       147       0.         our intersection       147       0.         section delay w/s       2014a emission         ate net emission       140         ions       147       147	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day 0.023 0.021	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) or Win g ons Summe	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38 Summe gra 38	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change	EB 22 0. WB 147 0. ate vehicle dela nour intersection resection delay w/ S 2014a emission ate net emission ions ents	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           / improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249            with change in kilogra         Delay in           Hours per Day         92.1           84.5	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002	3 34.0 = 9 7.0 = Hours per day 10 ) 10 ) or Win 9 ons Summe kil	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AM Summe gra 38 Summe gra 38	4.1       =         16.7       =         ection Delay,       =         ur       =         =       =         A or PM       2020         r CO2 Factor       ms/hour         565.610       CO Emissions         CO Emissions       grams/day         0.329       0.329	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change	EB 22 0. WB 147 0. ate vehicle dela nour intersection resection delay w/ S 2014a emission ate net emission ions ents	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         0           ons change in kilogra         92.1           84.5         0	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ams per year (seasonall	3       34.0         9       7.0         9       7.0         Hours per day       10         10       )         10       )         or       Win         g       g         ons       Summe kil         y adjusted)	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 All Summe gra 38 Winter ( kilog	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change	EB 22 0. WB 147 0. ate vehicle dela nour intersection resection delay w/ S 2014a emission ate net emission ions ents	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         (           ons change in kilogra         Delay in           Hours per Day         92.1           84.5         (           Ons change in kilogra         (           Net change         (	821 + 339 0.90 2,362 + 393 0.80 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ms per year (seasonall vg. weekdays Sea	3         34.0           9         7.0           9         7.0           9         7.0           Hours per day         10           10         )           10         )           0         0           0         7.0           10         )           10         )           0         10 <td>12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of</td> <td>133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 38 Winter ( kilog</td> <td>4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =</td> <td>586 113 /Seconds Delay in 92 84 <b>PM</b></td> <td>= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434</td>	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 38 Winter ( kilog	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul	EB 22 0. WB 147 0. ate vehicle dela nour intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emission	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         Hours per Day           92.1         84.5           ons change in kilogra         Net change           Net change         A           per day (kg) X         X	821 + 339 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ms per year (seasonall vog. weekdays Sea per year X	3         34.0           9         7.0           9         7.0           9         7.0           Hours per day         10           10         )           10         )           0         30           0         7.0           10         )           10         )           0         30 </td <td>12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of</td> <td>133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 All Summe gra 38 Winter ( kilog change er year</td> <td>4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =</td> <td>586 113 /Seconds Delay in 92 84 <b>PM</b></td> <td>= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434</td>	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 All Summe gra 38 Winter ( kilog change er year	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I	EB 22 0. WB 147 0. ate vehicle dela rour intersection rsection delay w/ S 2014a emission ate net emission ate net emission Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         Hours per Day           92.1         84.5           ons change in kilogra         Net change           Net change         A           per day (kg) X         -0.002 X	821 + 339 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ms per year (seasonall vvg. weekdays Sea per year X 250 X	3         34.0           9         7.0           9         7.0           9         7.0           Hours per day         10           10         )           10         )           10         )           0         .           ons         Summe kil           y adjusted)         asonal adj.           factor         =           1.0188         =	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 38 Winter C kilog change er year -0.482	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emission kilograms/day 328.548 301.434
yman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer VOC I	EB 22 0. WB 147 0. ate vehicle dela rour intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         Hours per Day           92.1         84.5           ons change in kilogra         Net change           Per day (kg) X         -0.002 X           -0.005 X         -0.005 X	821 + 339 0.90 2,362 + 393 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ms per year (seasonall wg. weekdays Sea per year X 250 X	3         34.0           9         7.0           9         7.0           9         7.0           Hours per day         10           10         )           10         )           10         )           0         .           ons         Summe kil           y adjusted)         asonal adj.           factor         =           1.0188         =           1.0188         =	12,394 + 3,091 + y) / 2020 ter CO Factor grams/hour 3.569 er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net of	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 38 Winter ( kilog change er year -0.482 -1.220	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r           r CO2 Factor         ms/hour           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOC I Summer NOC I	EB 22 0. WB 147 0. ate vehicle dela rour intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions ssions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         0           ons change in kilogra         Delay in           Hours per Day         92.1           84.5         9           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.027 X	821 + 339 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Factor grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ams per year (seasonall vg. weekdays Sea per year X 250 X 250 X	3       34.0         9       7.0         9       7.0         9       7.0         Hours per day       10         10       )         10       )         10       )         10       )         10       )         or       Win         g       g         ons       Summe         kil       kil         y adjusted)       asonal adj.         factor       =         1.0188       =         0.9812       =	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOC I Summer NOC I	EB       22       0.         WB       147       0.         ate vehicle delation resection delay w/s       2014a emission         S 2014a emission       3000000000000000000000000000000000000	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         0           ons change in kilogra         Delay in           Hours per Day         92.1           84.5         9           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.027 X           -27.114 X         -27.114 X	821 + 339 0.90 2,362 + 393 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ams per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ams per year (seasonall wg. weekdays Sea per year X 250 X 250 X 250 X	3       34.0         9       7.0         9       7.0         9       7.0         Hours per day       10         10       )         10       )         10       )         10       )         10       )         or       Win         g       g         ons       Summe         kil       g         y adjusted)       asonal adj.         factor       =         1.0188       =         0.9812       =         1.0000       =	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 38 Winter ( kilog change er year -0.482 -1.220	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOC I Summer NOC I	EB       22       0.         WB       147       0.         ate vehicle delation resection delay w/s       2014a emission         S 2014a emission       3000000000000000000000000000000000000	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           on factors for idling         2020           Summer VOC Factor         grams/hour           0.249         ons change in kilogra           Delay in         Hours per Day           92.1         84.5           ons change in kilogra         per day (kg) X           -0.002 X         -0.002 X           -0.005 X         -0.027 X           -27.114 X         (first year cost per k	821 + 339 0.90 2,362 + 393 0.90 2,362 + 393 0.90 Delay in seconds X 33,172 X 30,434 X speed: 2020 Summer NOX Facto grams/hour 0.630 ms per day: Summer VOC Emissi kilograms/day 0.023 0.021 -0.002 ms per year (seasonall vg. weekdays Sea per year X 250 X 250 X 250 X 250 X 250 X	3       34.0         9       7.0         9       7.0         9       7.0         Hours per day       10         10       )         10       )         10       )         10       )         10       )         or       Win         g       g         ons       Summe         kil       g         y adjusted)       asonal adj.         factor       =         1.0188       =         0.9812       =         1.0000       =	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328.548 301.434
Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOX E Winter CO Emi Summer CO2 E	EB 22 0. WB 147 0. ate vehicle dela our intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions Emissions Emissions Emissions Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           (on factors for idling 2020         2020           Summer VOC Factor grams/hour         0.249           ons change in kilogra         Delay in           Hours per Day 92.1         84.5           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.005 X           -0.027 X         -27.114 X           (first year cost per k         Adj. ne	821 +       339       0.90         2,362 +       393       0.80         Delay in seconds       X         33,172       X         30,434       X         speed:       2020         Summer NOX Factor       0.630         ams per day:       Summer VOC Emissis         kilograms/day       0.023         0.021       -0.002         ams per year (seasonall         vg. weekdays       Sea         per year       X         250       X      <	3       34.0         9       7.0         9       7.0         9       7.0         10       )         10       )         10       )         10       )         10       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328.548 301.434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer VOC I Summer NOX E Winter CO Emi Summer CO2 E	EB 22 0. WB 147 0. ate vehicle dela our intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions Emissions Emissions Emissions Emissions Emissions Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           (on factors for idling 2020         2020           Summer VOC Factor grams/hour         0.249           ons change in kilogra         Delay in           Hours per Day 92.1         84.5           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.005 X           -0.027 X         -27.114 X           (first year cost per k         Adj. ne	821 +       339       0.90         2,362 +       393       0.80         Delay in seconds       X         33,172       X         30,434       X         speed:       2020         Summer NOX Factor       0.630         ams per day:       Summer VOC Emissis         kilograms/day       0.023         0.021       -0.002         ams per year (seasonall         vg. weekdays       Sea         per year       X         250       X      <	3       34.0         9       7.0         9       7.0         9       7.0         9       7.0         10       )         10       )         10       )         10       )         10       )         0       )         0       )         0       )         0       )         0       )         0       )         0       )         st year cost	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328,548 301,434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOX E Winter CO Emi Summer CO2 E Calculate cost Emission Summer VOC	EB 22 0. WB 147 0. ate vehicle dela our intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions Emissions Emissions Emissions Emissions Emissions Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           (on factors for idling 2020         2020           Summer VOC Factor grams/hour         0.249           ons change in kilogra         Delay in           Hours per Day 92.1         84.5           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.005 X           -0.027 X         -27.114 X           (first year cost per k         Adj. ne	821 +       339       0.90         2,362 +       393       0.80         Delay in seconds       X         33,172       X         30,434       X         speed:         2020         Summer NOX Factor         grams/hour         0.630         ams per day:         Summer VOC Emissi         kilograms/day         0.023         0.021         -0.002         ams per year (seasonall         vg. weekdays         Sea         per year         250         X         250         X         250         X         250         X         250         X         250         X         30         X         250         X         250 <t< td=""><td>3       34.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         10       )         10       )         0.0       )         ons       Summer         kil       kil         y adjusted)       asonal adj.         factor       =         1.0188       =         0.9812       =         1.0000       )         st year cost       er kilogram         \$0       \$0</td><td>12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p</td><td>133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657</td><td>4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =</td><td>586 113 /Seconds Delay in 92 84 <b>PM</b></td><td>= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328,548 301,434</td></t<>	3       34.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         9       7.0         10       )         10       )         0.0       )         ons       Summer         kil       kil         y adjusted)       asonal adj.         factor       =         1.0188       =         0.9812       =         1.0000       )         st year cost       er kilogram         \$0       \$0	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328,548 301,434
Lyman St Step 5: Calcul Existing peak h Peak hour inter Step 6: MOVE Step 7: Calcul Existing Condit With Improvem Net Change Step 8: Calcul Summer VOC I Summer NOX E Winter CO Emi Summer CO2 E Calculate cost	EB 22 0. WB 147 0. ate vehicle dela our intersection resection delay w/ S 2014a emission ate net emission ions ents ate net emissions Emissions Emissions Emissions Emissions Emissions Emissions Emissions	93         34.7           89         14.3           ay in hours per day:         (           (delay         (           (improvements         (           (on factors for idling 2020         2020           Summer VOC Factor grams/hour         0.249           ons change in kilogra         Delay in           Hours per Day 92.1         84.5           ons change in kilogra         Net change           per day (kg) X         -0.002 X           -0.005 X         -0.005 X           -0.027 X         -27.114 X           (first year cost per k         Adj. ne	821 +       339       0.90         2,362 +       393       0.80         Delay in seconds       X         33,172       X         30,434       X         speed:       2020         Summer NOX Factor       0.630         ams per day:       Summer VOC Emissi         kilograms/day       0.023         0.021       -0.002         ums per year (seasonall         vg. weekdays       Sea         per year       X         250       X         250       X         250       X         250       X         g of emissions reduced         tchange       Firs         per year       privear	3       34.0         9       7.0         9       7.0         9       7.0         9       7.0         10       )         10       )         10       )         10       )         10       )         or       Win         g       g         ons       Summe         kil         y adjusted)         asonal adj.         factor       =         1.0188       =         0.9812       =         1.0000       1)         st year cost       er kilogram	12,394 + 3,091 + y) / 2020 ter CO Factor yrams/hour <b>3.569</b> er NOx Emissions ograms/day 0.058 0.053 -0.005 Adj. net 4 in kg p	133 0.93 6 0.89 Total Inters Seconds per ho 3600 3600 AN Summe gra 32 Winter ( kilog change er year -0.482 -1.220 -6.657	4.1         =           16.7         =           ection Delay,         =           ur         =           =         =           A or PM         =           2020         r CO2 Factor           ms/hour         =           565.610         =           CO Emissions         =           grams/day         0.329           0.302         =	586 113 /Seconds Delay in 92 84 <b>PM</b>	= 5,430 = 13,801 = 5,566 = <b>30,434</b> hours / day .1 .5 mmer CO2 Emissi kilograms/day 328,548 301.434

## CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements

FILL IN SHADE	ED BOXES O	NLY					
TIP YEAR:	2026						
MPO:	Old Color	ıy			Municipality:	Abington	
Project:	Improven	nents at Hancock S	Street and Chest	nut Street			
Step 1: Calcula	ate Existing A	M Peak Hour Total Inte	rsection Delav in Se	conds:			
		ft-Turns		ĥru	Total	Right-Turns	Total Total
Street Name	Dir (Vol /	, ,	· ·	HF) X delay =	move. + (Vol /	PHF) X delay =	move. = approach
		veh	delay	per veh	delay	per veh	delay delay
Hancock St Hancock St	NB 81 SB 10	0.93 7.7 = 0.76 8.0 =		0.93 0.0 =	0 + 0 +	66 0.93 0.0 = 68 0.76 0.0 =	0 = 671 0 = 105
Chestnut St	-	0.84 300.0 =		0.84 300.0 =	106,071 +	26 0.84 300.0 =	9,286 = 146,071
Chestnut St	-	0.83 300.0 =		0.83 300.0 =	68,675 +	12 0.83 300.0 =	4,337 = 87,108
						Total Intersection Delay	, , ,
Step 2: Calcula	-	M Peak Hour Total Inte	•				
		ft-Turns		'hru	Total	Right-Turns	Total Total
Street Name	Dir (Vol /	PHF) X delay per = veh	move. + (Vol / P delay	HF) X delay = per veh	move. + (Vol / delay	PHF) X delay = per veh	move. = approach delay delay
Hancock St	NB 52	0.91 8.4 =		0.91 0.0 =	0 +	23 0.91 0.0 =	0 = 480
Hancock St	SB 6	0.94 7.5 =		0.94 0.0 =	0 +	78 0.94 0.0 =	0 = 48
Chestnut St	EB 78	0.82 300.0 =	28,537 + 353 (	0.82 300.0 =	129,146 +	124 0.82 300.0 =	45,366 = 203,049
Chestnut St	WB 36	0.93 300.0 =	11,613 + 251 (	.93 300.0 =	80,968 +	6 0.93 300.0 =	1,935 = 94,516
						Total Intersection Delay	
Step 3: The sp	oreadsheet au	tomatically chooses the	e peak hour with the	longer total inte	ersection delay for th	e next step in the analysis	š.
Peak Hour (AM	I/PM): PM	· ]	Total Interse	ection Delay:	298,093		
Step 4: Calcula		ng PM P	eak Hour Total Inters	_			
•	Let	ft-Turns		hru	Total	Right-Turns	Total Total
Street Name	Dir (Vol /	, , ,	•	HF) X delay =	move. + (Vol /	PHF) X delay =	move. = approach
		veh	delay	per veh	delay	per veh	delay delay
Hancock St Hancock St	NB 52 SB 6	0.91 7.3 = 0.94 9.9 =		0.917.3 =0.949.9 =	842 +	23 0.91 7.3 = 78 0.94 9.9 =	185 = 1,444 821 = 4,308
Chestnut St	-	0.94 9.9 = 0.82 15.6 =		).94 9.9 = ).82 15.6 =	3,423 + 6,716 +	78         0.94         9.9         =           124         0.82         15.6         =	821 = 4,308 2,359 = 10,559
Chestnut St	WB 36	0.93 6.7 =		0.93 6.7 =	1,808 +	6 0.93 6.7 =	43 = 2,111
onoothat of		0.00	200 1 201 0		1,000 1	Total Intersection Dela	,
Step 5: Calcula	ate vehicle de	elay in hours per day:					
Eviating pook b	our interceptio	· · · ·	Delay in seconds	X Hours per da	ay) / S	Seconds per hour = 3600 =	Delay in hours / day
Existing peak h		w/ improvements (		X 10 X 10	) /	3600 = 3600 =	828.0 51.2
	,	factors for idling speed	,	X 10	) /	AM or PM	PM
		2020	2020		2020	2020	
		Summer VOC Factor	Summer NOx Fa	actor Wi	nter CO Factor	Summer CO2 Facto	r
		grams/hour	grams/hour		grams/hour	grams/hour	
		0.249	0.630		3.499	3565.610	
Step 7: Calcula	ate net emiss	ions change in kilogran Delay in	ns per day: Summer VOC Emi	ssions Summ	er NOx Emissions	Winter CO Emission	s Summer CO2 Emission
		Hours per Day	kilograms/da		ilograms/day	kilograms/day	kilograms/day
Existing Conditi	ions	828.0	0.206	, г	0.522	2.897	2,952.452
With Improvem		51.2	0.200		0.032	0.179	182.449
Net Change	iento	51.2	-0.193		-0.489	-2.718	-2,770.002
	ate net emiss	ions change in kilogran		Ily adjusted)	01100	21110	2,110,0002
		Net change A	vg. weekdays	Seasonal adj.	Adj. net ch	ange	
		per day (kg) X	per year X	factor =	in kg per	year	
Summer VOC E	Emissions	-0.193 X	250 X	1.0188 =	-49	9.269	
Summer NOx E	Emissions	-0.489 X	250 X	1.0188 =	-124	4.657	
Winter CO Emi	ssions	-2.718 X	250 X	0.9812 =	-66	6.788	
Summer CO2 E	Emissions	-2,770.002 X	250 X	1.0000	-692,50	0.581	
Calculate cost		s (first year cost per kg		•			
Emission	Project Cost		t change per year	First year cost			
L111991011	COSI	ит <b>к</b> g	-49.269 =	per kilogram <b>\$0</b>			
Summer V/OC		/					
Summer VOC		/					
Summer VOC Summer NOx Winter CO			-49.209 = -124.657 = -666.788 =	\$0 \$0 \$0			



### Project name: KINGSTON- DUXBURY- INTERSECTION IMPROVEMENTS AT ROUTE 3 RAMPS (NB

Meeting date:		Requesting party:	Old Colony MPO
Project ID (if applicable):	606002	Project sponsor:	Municipality
Estimated cost:		Estimated CMAQ	funding:
Year of programming (if applicable):	2027	Analysis type:	Qualitative

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project will improve intersections of Route 3 northbound and southbound ramps with Tremont Street (Route 3A) in Duxbury and Kingston. Project has not completed ICE process at this time, so preferred design alternative is unknown.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

VOC kg/year	No change	NOx kg/year	No change	CO kg/year	No change	CO <sub>2</sub> kg/year	No change
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year c	ost per kg



roject name. Intersection improvement	roject name. Intersection improvements at route 155 and chesting offect, Abington							
Meeting date:	4/27/2022	Requesting party:	Old Colony M	1PO				
Project ID (if applicable):	612525	Project sponsor:	Municipality					
Estimated cost:	3,786,625	Estimated CMAQ	funding:	3,000,000.00				
Year of programming (if applicable):	2027	Analysis type:	Intersection /	Traffic Flow				

#### **Project name:** Intersection Improvements at Route 139 and Chestnut Street, Abington

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region
   (hogwild traversed corridor regrestional trail at
- (heavily-traversed corridor, recreational trail, etc.)Nature of development nearby (residential,
- downtown commercial, highway-oriented commercial, etc.)

- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project proposes to improve congested and high crash location intersection of Randolph Street / Richard Fitts Drive (Route 139) at Chestnut Street and Old Randolph Street. Intersection is located on major east-west State highway, intersected by a major connector to residential areas and a nearby elementary school. Volume on Route 139 plus skewed geometry results in excessive delay for drivers attempting to enter from Chestnut Street and Old Randolph Street. While this project is pre-25% design, it is expected preferred design will be a roundabout and majority of project cost, if not all, will be CMAQ eligible.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

Analysis performed in Syncho software indicates reconstructing this existing TWSC intersection as a roundabout will result in substantial reductions in VOC, NOx, CO, and CO2 during the peak demand hours.

VOC kg/year	Decrease	NOx kg/year	Decrease	CO kg/year	Decrease	CO₂ kg/year	Decrease
	32.967		83.410		446.159		463,363.580
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year	cost per kg
	114,862		45,398		8.487		8.00



## Project name: BROCKTON- INTERSECTION IMPROVEMENTS AT ROUTE 123 (BELMONT STREET

Meeting date:		Requesting party:	Old Colony MPO
Project ID (if applicable):	612262	Project sponsor:	Municipality
Estimated cost:		Estimated CMAQ	funding:
Year of programming (if applicable):	2028	Analysis type:	Qualitative

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project will improve intersection of Belmont Street (Route 123) at Pearl Street and Stonehill Street in Brockton. Project has not completed ICE process at this time, so preferred design alternative is unknown.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

VOC kg/year	No change	NOx kg/year	No change	CO kg/year	No change	CO <sub>2</sub> kg/year	No change
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year c	ost per kg



### Project name: HANOVER- CORRIDOR IMPROVEMENTS ON ROUTE 139 (HANOVER STREET) AT

Meeting date:		Requesting party:	Old Colony MPO
Project ID (if applicable):	612769	Project sponsor:	Municipality
Estimated cost:		Estimated CMAQ	funding:
Year of programming (if applicable):	2028	Analysis type:	Qualitative

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project will improve intersections of Hanover Street (Route 139) at Main Street, Center Street, and Silver Street in Hanover. Project is in preliminary design phase and has not completed ICE process at this time, so preferred design alternative is unknown.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

VOC kg/year	No change	NOx kg/year	No change	CO kg/year	No change	CO <sub>2</sub> kg/year	No change
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year c	ost per kg



### Project name: EAST BRIDGEWATER- INTERSECTION IMPROVEMENTS AT HIGHLAND STREET AN

Meeting date:		Requesting party:	Old Colony MPO
Project ID (if applicable):	611976	Project sponsor:	Municipality
Estimated cost:		Estimated CMAQ	funding:
Year of programming (if applicable):	2029	Analysis type:	Qualitative

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project will improve intersection of Route 18 at Highland Street in East Bridewater. Project is in preliminary design phase and has not completed ICE process at this time, so preferred design alternative is unknown.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

VOC kg/year	No change	NOx kg/year	No change	CO kg/year	No change	CO <sub>2</sub> kg/year	No change
First year cost per kg		First year cost per kg		First year cost per kg		First year cost per kg	



#### Project name: HANOVER- INTERSECTION IMPROVEMENTS AT COLUMBIA ROAD (ROUTE 53/139)

Meeting date:		Requesting party:	Old Colony MPO
Project ID (if applicable):	613599	Project sponsor:	Municipality
Estimated cost:		Estimated CMAQ	funding:
Year of programming (if applicable):	2029	Analysis type:	Qualitative

**Description of project** *I* Brief description of the project, including if applicable, but not limited to the following:

- Existing corridor characteristics
- Context of corridor within community or region (heavily-traversed corridor, recreational trail, etc.)
- Nature of development nearby (residential, downtown commercial, highway-oriented commercial, etc.)
- Corridor deficiencies
- Project characteristics to address deficiencies
- Anticipated improvements from project
- CMAQ-eligible components of project
- Inclusion of project in local, regional, or statewide plans

Project will improve intersection of Route 53 (Volumbia Road) at Broadway in Hanover. Project is in preliminary design phase and has not completed ICE process at this time, so preferred design alternative is unknown.

**Air quality improvements** *I* Short explanation of air quality benefits, summarizing quantitative findings or demonstrate qualitative findings.

Project is expected to yield substantial reduction in GHG emissions due to improvement in traffic flow and capacity.

VOC kg/year	No change	NOx kg/year	No change	CO kg/year	No change	CO <sub>2</sub> kg/year	No change
First yea	r cost per kg	First yea	r cost per kg	First yea	r cost per kg	First year c	ost per kg

## **APPENDIX L - FFY 2025-2029 GATRA TRANSIT ELEMENT**



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2025									
Operating	RTD0010663	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	5307	\$1,320,000	\$1,320,000		
Operating	RTD0010663	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	SCA	\$330,000		\$330,000	
Operating	RTD0010664	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	5307	\$650,000	\$650,000		
Operating	RTD0010664	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	SCA	\$650,000		\$650,000	
Operating	RTD0010666	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	5307	\$4,480,000	\$4,480,000		
Operating	RTD0010666	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	SCA	\$1,120,000		\$1,120,000	
Operating	RTD0010667	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	5307	\$160,000	\$160,000		
Operating	RTD0010667	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	SCA	\$40,000		\$40,000	
Revenue Vehicle Program	T00095	GATRA		GATRA - Associated Capital Items Bus	5339	\$0	\$0		
Revenue Vehicle Program	T00095	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$0		\$0	
RTA Facility & System Modernization	RTD0010668	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Rehab-Renovation Attleboro Area Commuter Rail Stations	5337	\$1,048,530	\$1,048,530		
RTA Facility & System Modernization	RTD0010668	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Rehab-Renovation Attleboro Area Commuter Rail Stations	LF	\$262,133			\$262,133
RTA Facility & System Modernization	RTD0011418	GATRA		Greater Attleboro-Taunton Regional Transit Authority - East Maintenance Facility	RTACAP	\$2,450,000		\$2,450,000	
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	5307	\$800,000	\$800,000		
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	RTACAP	\$200,000		\$200,000	
RTA Facility & Vehicle Maintenance	GATRA011649	GATRA		Greater Attleboro Taunton Regional Transit Authority - Purchase Support Vehicles (2)	5307	\$96,000	\$96,000		
RTA Facility & Vehicle Maintenance	GATRA011649	GATRA		Greater Attleboro Taunton Regional Transit Authority - Purchase Support Vehicles (2)	RTACAP	\$24,000		\$24,000	
RTA Facility & Vehicle Maintenance	T00082	GATRA	Multiple	GATRA - Rehab Renovate Bus Facilities	5307	\$61,600	\$61,600		
RTA Facility & Vehicle Maintenance	T00082	GATRA	Multiple	GATRA - Rehab Renovate Bus Facilities	RTACAP	\$15,400		\$15,400	

STID: 2025 2020 (D)



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2025									
RTA Facility & Vehicle Maintenance	T00083	GATRA	Multiple	GATRA - Miscellaneous Support Equipment	5307	\$65,541	\$65,541		
RTA Facility & Vehicle Maintenance	T00083	GATRA	Multiple	GATRA - Miscellaneous Support Equipment	RTACAP	\$16,385		\$16,385	
RTA Fleet Upgrades	RTD0010665	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement Vans - 20	LF	\$2,186,400			\$2,186,400
RTA Fleet Upgrades	RTD0010669	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (4) - BEB - TBB Earmark 6720-2261	ONF	\$1,021,200			\$1,021,200
RTA Fleet Upgrades	RTD0010669	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (4) - BEB - TBB Earmark 6720-2261	RTACAP	\$0		\$0	
RTA Vehicle Replacement	GATRA011782	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (1) - BEB	5339D	\$915,032	\$915,032		
RTA Vehicle Replacement	GATRA011782	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (1) - BEB	RTACAP	\$228,759		\$228,759	
RTA Vehicle Replacement	GATRA011783	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (1) - BEB	VWSF	\$1,021,200			\$1,021,200
RTA Vehicle Replacement	GATRA011784	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement Minibuses (8) - BEB - TBB Earmark 6720-2261	ONF	\$1,100,000			\$1,100,000
RTA Vehicle Replacement	T00095	GATRA		GATRA - Associated Capital Items Bus	5339	\$322,960	\$322,960		
RTA Vehicle Replacement	T00095	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$80,740		\$80,740	
					5307 Programmed	\$7,633,141	\$7,633,141		
					5337 Programmed	\$1,048,530	\$1,048,530		
					5339 Programmed	\$322,960	\$322,960		
					5339D Programmed	\$915,032	\$915,032		
					LF Programmed	\$2,448,533			\$2,448,533
					ONF Programmed	\$2,121,200			\$2,121,200
				R	TACAP Programmed	\$3,015,284		\$3,015,284	
					SCA Programmed	\$2,140,000		\$2,140,000	
					VWSF Programmed	\$1,021,200			\$1,021,200



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
			Total Prog	grammed for Greater Attleboro-Taunton Regional Tra	ansit Authority Projects	\$20,665,880	\$9,919,663	\$5,155,284	\$5,590,933



Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2026									
Bus Program	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	5307	\$0	\$0		
Bus Program	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	RTACAP	\$0		\$0	
Bus Program	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	VWSF	\$0			\$0
Operating	RTD0010672	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	5307	\$80,000	\$80,000		
Operating	RTD0010672	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	SCA	\$20,000		\$20,000	
Operating	RTD0010673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	5307	\$4,480,000	\$4,480,000		
Operating	RTD0010673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	SCA	\$1,120,000		\$1,120,000	
Operating	RTD0010674	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	5307	\$1,320,000	\$1,320,000		
Operating	RTD0010674	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	SCA	\$330,000		\$330,000	
Operating	RTD0010675	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	5307	\$750,000	\$750,000		
Operating	RTD0010675	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	SCA	\$750,000		\$750,000	
Revenue Vehicle Program	T00102	GATRA		GATRA - Associated Capital Items Bus	5307	\$0	\$0		
Revenue Vehicle Program	T00102	GATRA		GATRA - Associated Capital Items Bus	5339	\$0	\$0		
Revenue Vehicle Program	T00102	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$0		\$0	
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	5307	\$1,200,000	\$1,200,000		
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	RTACAP	\$300,000		\$300,000	
RTA Facility & System Modernization	T00101	GATRA	Attleboro	GATRA - Transit Enhancement	5307	\$9,600	\$9,600		
RTA Facility & System Modernization	T00101	GATRA	Attleboro	GATRA - Transit Enhancement	RTACAP	\$2,400		\$2,400	
RTA Facility & Vehicle Maintenance	RTD0010676	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Miscellaneous Support Equipment	5307	\$30,291	\$30,291		
RTA Facility & Vehicle Maintenance	RTD0010676	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Miscellaneous Support Equipment	RTACAP	\$7,573		\$7,573	



								STIF	2: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2026									
RTA Fleet Upgrades	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	5307	\$832,603	\$832,603		
RTA Fleet Upgrades	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	RTACAP	\$208,151		\$208,151	
RTA Fleet Upgrades	GATRA011673	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	VWSF	\$1,040,754			\$1,040,754
RTA Fleet Upgrades	RTD0010669	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (4) - BEB - TBB Earmark 6720-2261	ONF	\$2,081,508			\$2,081,508
RTA Vehicle Replacement	RTD0010677	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement Vans - 16	LF	\$1,711,000			\$1,711,000
RTA Vehicle Replacement	T00102	GATRA		GATRA - Associated Capital Items Bus	5307	\$112,000	\$112,000		
RTA Vehicle Replacement	T00102	GATRA		GATRA - Associated Capital Items Bus	5339	\$306,368	\$306,368		
RTA Vehicle Replacement	T00102	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$104,592		\$104,592	
					5307 Programmed	\$8,814,494	\$8,814,494		
					5339 Programmed	\$306,368	\$306,368		
					LF Programmed	\$1,711,000			\$1,711,000
					ONF Programmed	\$2,081,508			\$2,081,508
				R	TACAP Programmed	\$622,716		\$622,716	
					SCA Programmed	\$2,220,000		\$2,220,000	
					VWSF Programmed	\$1,040,754			\$1,040,754
			Total	Programmed for Greater Attleboro-Taunton Regional Tran	sit Authority Projects	\$16,796,840	\$9,120,862	\$2,842,716	\$4,833,262



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2027									
Operating	RTD0011412	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	5307	\$1,320,000	\$1,320,000		
Operating	RTD0011412	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Non Fixed Route ADA Paratransit Operating	SCA	\$330,000		\$330,000	
Operating	RTD0011413	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Mobility Management	5307	\$140,000	\$140,000		
Operating	RTD0011413	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Mobility Management	SCA	\$35,000		\$35,000	
Operating	RTD0011415	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	5307	\$80,000	\$80,000		
Operating	RTD0011415	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Short Range Transit Planning	SCA	\$20,000		\$20,000	
Operating	RTD0011416	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	5307	\$750,000	\$750,000		
Operating	RTD0011416	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Fixed Route Operating Assistance	SCA	\$750,000		\$750,000	
Operating	RTD0011417	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	5307	\$4,480,000	\$4,480,000		
Operating	RTD0011417	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Preventative Maintenance	SCA	\$1,120,000		\$1,120,000	
Revenue Vehicle Program	T00099	GATRA		GATRA - Associated Capital Items Bus	5339	\$0	\$0		
Revenue Vehicle Program	T00099	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$0		\$0	
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	5307	\$1,200,000	\$1,200,000		
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	RTACAP	\$300,000		\$300,000	
RTA Facility & Vehicle Maintenance	RTD0011411	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Miscellaneous Support Equipment	5307	\$14,259	\$14,259		
RTA Facility & Vehicle Maintenance	RTD0011411	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Miscellaneous Support Equipment	RTACAP	\$3,565		\$3,565	
RTA Fleet Upgrades	RTD0010669	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (4) - BEB - TBB Earmark 6720-2261	ONF	\$1,060,683			\$1,060,683
RTA Fleet Upgrades	RTD0011422	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses BEB (1)	5307	\$848,546	\$848,546		
RTA Fleet Upgrades	RTD0011422	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses BEB (1)	RTACAP	\$212,137		\$212,137	

STID: 2025 2020 (D)



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2027									
RTA Vehicle Replacement	GATRA011784	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement Minibuses (8) - BEB - TBB Earmark 6720-2261	ONF	\$1,036,609			\$1,036,609
RTA Vehicle Replacement	RTD0011414	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement Vans - 13	LF	\$1,478,600			\$1,478,600
RTA Vehicle Replacement	Т00099	GATRA		GATRA - Associated Capital Items Bus	5339	\$41,480	\$41,480		
RTA Vehicle Replacement	Т00099	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$13,481		\$13,481	
				·	5307 Programmed	\$8,832,805	\$8,832,805		
					5339 Programmed	\$41,480	\$41,480		
					LF Programmed	\$1,478,600			\$1,478,600
					ONF Programmed	\$2,097,292			\$2,097,292
				R	TACAP Programmed	\$529,183		\$529,183	
					SCA Programmed	\$2,255,000		\$2,255,000	
			Total	Programmed for Greater Attleboro-Taunton Regional Trar	sit Authority Projects	\$15,234,360	\$8,874,285	\$2,784,183	\$3,575,892



								STIP	: 2025 - 2029 (D
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2028									
Operating	T00108	GATRA		GATRA - Short Range Transit Planning	5307	\$80,000	\$80,000		
Operating	T00108	GATRA		GATRA - Short Range Transit Planning	SCA	\$20,000		\$20,000	
Operating	T00109	GATRA		GATRA - Non Fixed Route ADA Operating	5307	\$1,320,000	\$1,320,000		
Operating	T00109	GATRA		GATRA - Non Fixed Route ADA Operating	SCA	\$330,000		\$330,000	
Operating	T00110	GATRA		GATRA - Operating Assistance	5307	\$750,000	\$750,000		
Operating	T00110	GATRA		GATRA - Operating Assistance	SCA	\$750,000		\$750,000	
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	5307	\$0	\$0		
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	5339	\$0	\$0		
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$93,333		\$93,333	
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	5307	\$400,000	\$400,000		
RTA Facility & System Modernization	T00080	GATRA	Taunton	GATRA - Parcel 6A Solar Project	RTACAP	\$100,000		\$100,000	
RTA Facility & System Modernization	T00104	GATRA		GATRA - Electric Vehicle Charging Stations	5307	\$112,000	\$112,000		
RTA Facility & System Modernization	T00104	GATRA		GATRA - Electric Vehicle Charging Stations	RTACAP	\$28,000		\$28,000	
RTA Facility & Vehicle Maintenance	T00106	GATRA		GATRA - Associated Capital Items Bus	5307	\$37,332	\$37,332		
RTA Facility & Vehicle Maintenance	T00106	GATRA		GATRA - Associated Capital Items Bus	5339	\$336,000	\$336,000		
RTA Facility & Vehicle Maintenance	T00111	GATRA		GATRA - Preventative Maintenance	5307	\$4,480,000	\$4,480,000		
RTA Facility & Vehicle Maintenance	T00111	GATRA		GATRA - Preventative Maintenance	SCA	\$1,120,000		\$1,120,000	
RTA Vehicle Replacement	T00105	GATRA		GATRA - Acquire Vans (10)	LF	\$1,001,100			\$1,001,100
RTA Vehicle Replacement	T00107	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	5307	\$1,729,588	\$1,729,588		
RTA Vehicle Replacement	T00107	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	RTACAP	\$432,397		\$432,397	
Technical Assistance	T00108	GATRA		GATRA - Short Range Transit Planning	5307	\$0	\$0		
Technical Assistance	T00108	GATRA		GATRA - Short Range Transit Planning	SCA	\$0		\$0	



								STIF	P: 2025 - 2029 (D)
Program	m MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
					5307 Programmed	\$8,908,920	\$8,908,920		
					5339 Programmed	\$336,000	\$336,000		
					LF Programmed	\$1,001,100			\$1,001,100
					RTACAP Programmed	\$653,730		\$653,730	
					SCA Programmed	\$2,220,000		\$2,220,000	
			Total Pr	rogrammed for Greater Attleboro-Taunton Region	al Transit Authority Projects	\$13,119,750	\$9,244,920	\$2,873,730	\$1,001,100



Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2029									
Mobility Assistance Program	T00112	GATRA		GATRA - Mobility Management	5307	\$0	\$0		
Mobility Assistance Program	T00112	GATRA		GATRA - Mobility Management	SCA	\$0		\$0	
Operating	T00108	GATRA		GATRA - Short Range Transit Planning	5307	\$80,000	\$80,000		
Operating	T00108	GATRA		GATRA - Short Range Transit Planning	SCA	\$20,000		\$20,000	
Operating	T00109	GATRA		GATRA - Non Fixed Route ADA Operating	5307	\$1,320,000	\$1,320,000		
Operating	T00109	GATRA		GATRA - Non Fixed Route ADA Operating	SCA	\$330,000		\$330,000	
Operating	T00110	GATRA		GATRA - Operating Assistance	5307	\$750,000	\$750,000		
Operating	T00110	GATRA		GATRA - Operating Assistance	SCA	\$750,000		\$750,000	
Operating	T00112	GATRA		GATRA - Mobility Management	5307	\$140,000	\$140,000		
Operating	T00112	GATRA		GATRA - Mobility Management	SCA	\$35,000		\$35,000	
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	5307	\$0	\$0		
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	5339	\$0	\$0		
Revenue Vehicle Program	T00106	GATRA		GATRA - Associated Capital Items Bus	RTACAP	\$97,481		\$97,481	
RTA Facility & System Modernization	T00104	GATRA		GATRA - Electric Vehicle Charging Stations	5307	\$112,000	\$112,000		
RTA Facility & System Modernization	T00104	GATRA		GATRA - Electric Vehicle Charging Stations	RTACAP	\$28,000		\$28,000	
RTA Facility & Vehicle Maintenance	GATRA011689	GATRA		GATRA - Miscellaneous Support Equipment	5307	\$36,493	\$36,493		
RTA Facility & Vehicle Maintenance	GATRA011689	GATRA		GATRA - Miscellaneous Support Equipment	RTACAP	\$9,123		\$9,123	
RTA Facility & Vehicle Maintenance	T00106	GATRA		GATRA - Associated Capital Items Bus	5307	\$336,000	\$336,000		
RTA Facility & Vehicle Maintenance	T00106	GATRA		GATRA - Associated Capital Items Bus	5339	\$53,924	\$53,924		
RTA Facility & Vehicle Maintenance	T00111	GATRA		GATRA - Preventative Maintenance	5307	\$4,480,000	\$4,480,000		
RTA Facility & Vehicle Maintenance	T00111	GATRA		GATRA - Preventative Maintenance	SCA	\$1,120,000		\$1,120,000	
RTA Vehicle Replacement	T00105	GATRA		GATRA - Acquire Vans (10)	LF	\$1,480,800			\$1,480,8

STID: 2025 2020 (D)



								STIP	: 2025 - 2029 (D)
Program	MassDOT Project ID	RTA	Municipality	MassDOT Project Description	Funding Source	Total Programmed Funds	Federal Funds	State Funds	Other Funds
Federal Fiscal Year 2029									
RTA Vehicle Replacement	T00107	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	5307	\$1,762,706	\$1,762,706		
RTA Vehicle Replacement	T00107	GATRA		Greater Attleboro-Taunton Regional Transit Authority - Buy Replacement 35-FT Buses (2) - BEB	RTACAP	\$440,677		\$440,677	
Technical Assistance	T00108	GATRA		GATRA - Short Range Transit Planning	5307	\$0	\$0		
Technical Assistance	T00108	GATRA		GATRA - Short Range Transit Planning	SCA	\$0		\$0	
					5307 Programmed	\$9,017,199	\$9,017,199		
					5339 Programmed	\$53,924	\$53,924		
					LF Programmed	\$1,480,800			\$1,480,800
				R	TACAP Programmed	\$575,281		\$575,281	
					SCA Programmed	\$2,255,000		\$2,255,000	
			Total	Programmed for Greater Attleboro-Taunton Regional Trar	sit Authority Projects	\$13,382,204	\$9,071,123	\$2,830,281	\$1,480,800

## APPENDIX M – MBTA FEDERAL CAPITAL PROGRAM – FFY 2024 AND FFY 2025-2029 PROJECT LIST

#### MBTA Federal Capital Program FFY 2024 and FFY 2025-2029 TIP - Project List and Descriptions (80% Federal Share) - April 2024

Funds TIP Program CIP ID# Project Name FFY 2024 FFY 2025-2029 Total (Federal) Project Description

#### FTA Formula Funds (5307, 5337, 5339)

5307 - Bridge and Tunnel

5307	Bridge and Tunnel	P0014	Merrimack River Bridge	\$0	\$800,000	\$800,000	Rehabilitation, strengthening, and painting of the superstructure of the Merrimack River and Washington Street Bridges. Includes repairs to stone piers, substructure, scour countermeasures, and replacement of bearings.
5307	Bridge and Tunnel	191107	Bridge Program Pipeline - Rehabilitation, Repair and Replacement	\$0	\$75,200,000		This program uses information provided through the bridge inspection and load rating program to design and construct prioritized bridge rehabilitation, repair, or replacement projects.
				\$0	\$76,000,000	\$76,000,000	

#### 5307 - Revenue Vehicles

5307	Revenue Vehicles	P0369	Green Line Type 10 Vehicle Replacement Program	\$20,117,766	\$327,554,314	\$347,672,080	Procurement of 102 new fully-accessible light rail vehicles and related infrastructure improvements to replace the existing Type 7 and Type 8 fleets, with additional optional cars available in the contract to support increased system capacity.
5307	Revenue Vehicles	P0618	Procurement of 40ft Enhanced Electric Hybrid Buses	\$0	\$109,093,636	\$109,093,636	Procurement of 460 40ft Enhanced Electric Hybrid (EEH) buses to replace 310 40ft diesel buses purchased in 2006-2008 and support more reliable, efficient, and sustainable operations. Includes vehicle testing, warranty, and inspection.
5307	Revenue Vehicles	P0649	Option Order Procurement of New Flyer Hybrid 40ft Buses	\$239,140	\$0	\$239,140	Procurement of 194 40ft buses with hybrid propulsion to replace an aging fleet and improve fuel economy.
5307	Revenue Vehicles	P0652	Procurement of 100 Bi-Level Commuter Rail Coaches	\$0	\$35,076,265	\$35,076,265	Procurement of 100 Bi-Level Commuter Rail coaches to replace aging single-level coaches, expand capacity from 120 to 180 passengers per coach, reduce number of coaches required, and mitigate operational bottlenecks.
5307	Revenue Vehicles	P0860	Hybrid Bus Overhaul (New Flyer XDE40 - SR 1881)	\$0	\$1,440,000	\$1,440,000	Midlife overhaul of major systems and components (e.g., engine, battery upgrade, drive unit, cooling systems, axles, brakes) of 60 40ft BAE hybrid buses to ensure reliable and safe operations and to meet FTA service life requirements.
5307	Revenue Vehicles	P0911	Hybrid Bus Overhaul (New Flyer XDE40 - SR1983)	\$16,598,573	\$36,617,549	\$53,216,122	Midlife overhaul of major systems and components of 156 40ft hybrid buses to ensure reliable and safe operations that meet FTA requirements. Also includes condition assessment activities for 175 40ft CNG buses, and 45 60ft hybrid buses.
5307	Revenue Vehicles	P1154	CNG Bus Overhaul (New Flyer XN40 - SR 1982)	\$28,000,000	\$0	\$28,000,000	Planning for the midlife overhaul of 175 40-foot New Flyer CNG buses delivered 2016 to 2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.
5307	Revenue Vehicles	P1162	Reliability Centered Maintenance - Blue, Orange and Red Line	\$0	\$28,320,000	\$28,320,000	Improvements to trucks, brakes, motors, current collectors, propulsion, and auxiliary fuses on the Blue Line and improvements to propulsion, brakes, HVAC, and doors on the Red and Orange Lines.
				\$64,955,479	\$538,101,764	\$603,057,243	

#### 5307 - Signals and Systems

5307	Signals and Systems	P0285	Signal Program - Red/Orange Line	\$0	\$71,578,427	\$71,578,427	Replacement and upgrade of signal equipment on the Red and Orange Lines. Includes renewal of track circuit modules using latest digital audio frequency technology and replacement of wayside equipment.
5307	Signals and Systems	P0857	Mattapan HSL Transformation	\$0	\$69,861,295	\$69,861,295	State of good repair and accessibility improvements, power upgrades, and other infrastructure investments on the Mattapan Line.
5307	Signals and Systems	P0912	Systemwide Tunnel Flood Mitigation Program	\$0	\$5,600,000	\$5,600,000	Planning, training, and infrastructure improvements to make the tunnel network more resilient to flooding exposures due to storm surge, precipitation, and sea level rise.
5307	Signals and Systems	P1210	PILC-EPR Medium Voltage Cable Replacement Program	\$0	\$11,800,000	\$11,800,000	Replacement of medium voltage AC cables that are beyond their useful life between traction power substations to maintain a state of good repair and reduce lead exposure risk to employees.
5307	Signals and Systems	P1212	Systemwide 15kV Feeder and Duct Bank Replacement	\$0	\$7,200,000		Design and systemwide replacement of cables with Paper Insulated Lead Covered (PILC) feeders with new cables containing Ethylene Propylene Rubber (EPR) feeders to increase employee safety and power system resiliency.
5307	Signals and Systems	P1213	Systemwide SCADA Equipment Upgrade	\$0	\$7,200,000		Equipment and fiber optic network upgrades to the Supervisory Control and Data Acquisition (SCADA) system that controls critical power infrastructure. Upgrades incl. a new master terminal, programmable logic controllers, and remote terminal units.
5307	Signals and Systems	P1255	Track Improvement Plan - Green and Blue Lines	\$20,775,823	\$0	\$20,775,823	Implementation of the MBTA Track Improvement Plan to remove speed restrictions on the Green and Blue Lines.
5307	Signals and Systems	P1263	Track Improvement Program - Red Line	\$147,976,778	\$0	\$147,976,778	Implementation of the MBTA Track Improvement Plan to remove speed restrictions on the Red Line.

#### 5307 - Stations and Facilities

#### \$168,752,601 \$173,239,722 \$341,992,323

5507 - 51	ations and Facili	ues					
15307	Stations and Facilities	P0066a	Quincy Adams Accessibility Improvements	\$126,633	\$0	\$126,633	Replacement of three existing elevators and addition of new elevator at Quincy Adams, according to ADA/BCIL requirements. Also includes upgrades to mechanical, communication, and safety systems, as well as wayfinding signage.
15307	Stations and Facilities	P0066e	Harvard/Central Elevator	\$400,000	\$0	\$400,000	Replacement of existing station elevator No. 821 at Harvard Square and No. 861 at Central Square on the Red Line, per ADA/BCIL requirements. Also includes replacement of central escalator No. 360.
5307	Stations and Facilities	P0066g	Downtown Crossing Elevator Phase 1	\$72,000	\$0	\$72,000	Installation of two new elevators at Downtown Crossing to meet ADA and BCIL requirements. Includes exit gate improvements, creation of 'points of safety' with fire/smoke rated wall and door assemblies, and a new fire alarm system.
15307	Stations and Facilities	P0075	Elevator Program Multiple Location Design	\$6,632,106	\$20,636,654	\$27,268,761	Design and some construction work for the replacement of elevators and/or addition of new, redundant elevators and related wayfinding amenities at transit stations.
5307	Stations and Facilities	P0104	Charlestown Bus - Seawall Rehabilitation	\$2,000,000	\$0	\$2,000,000	Stabilization of the Mystic River shoreline and replacement of existing seawall to protect Charlestown Bus Facility from flooding, Includes a collaboration with Massachusetts DCR to build a multi-use public path along the seawall.
15307	Stations and Facilities	P0165	Harvard Square Busway Repairs	\$993,026	\$0	\$993,026	Rehabilitation of roadway, lighting, signage, drainage, and catenary systems in the Harvard busway and accessibility upgrades to ensure near level boarding for the 71 and 73 buses.
5307	Stations and Facilities	P0671a	Quincy Bus Facility Modernization	\$52,521,372	\$42,528,597	\$95,049,968	Relocation and replacement of the Quincy Bus Maintenance Facility. The new, modernized facility will expand capacity and includes the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet.
15307	Stations and Facilities	P0671b	Arborway Bus Facility - Design Funding	\$0	\$22,320,000	\$22,320,000	Design funding to support the construction of a new Arborway bus facility to accommodate battery electric bus (BEB) infrastructure and bus electrification.
15307	Stations and Facilities	P0671c	North Cambridge Bus Facility Retrofit	\$30,928,812	\$0	\$30,928,812	Renovation of North Cambridge facility to support conversion to battery electric bus (BEB) fleets and bus electrification.
15307	Stations and Facilities	P0912a	Airport Tunnel Portal Flood Protection	\$0	\$16,398,322	\$16,398,322	Addition of floodgates and large steel doors to the entrance of the Blue Line tunnel at the tunnel's Airport Portal to prevent flooding. Includes updates to pump rooms and traction power systems.
5307	Stations and Facilities	P0912b	Systemwide Pump Room Upgrades	\$0	\$1,920,000	\$1,920,000	Design phase funding for state of good repair improvements to rapid transit and Silver Line tunnel pump rooms, including state of good repair and SCADA upgrades.
15307	Stations and Facilities	P1011	Green Line Extension Vehicle Maintenance Facility Modifications & Upgrades	\$0	\$9,943,729	\$9,943,729	Design and installation of a new hoist at the Green Line Extension (GLX) Vehicle Maintenance Facility to accommodate the future Type 10 fleet.

5307	Stations and Facilities	IP1103	Reservoir Yard and Non-Revenue Track Optimization and Reconfiguration	\$0	\$24,424,868	\$24,424,868	Reconfiguration of various track elements at Reservoir, including the lower west yard, East/West Wye, Chestnut Hill Avenue connection, B-branch connection, and non-revenue track around Cleveland Circle.
5307	Stations and Facilities	P1216	Everett Building 2 Floor Repairs	\$0	\$15,031,457	\$15,031,457	Repairs to the heavily deteriorated structure on the first floor of Everett's Building 2 facility that supports heavy rail service.
5307	Stations and Facilities	IP1225	Systemwide Escalator and Elevator Replacement Program	\$0	\$12,000,000	\$12,000,000	Replacement of escalators and elevators systemwide that are in poor condition, have limited parts available, and require replacement as identified in the MBTA's 20-Year Vertical Transportation Capital Plan.
5307	Stations and Facilities	IP1737	Green Line D Branch Enhanced Accessibility Improvements	\$0	\$18,297,716	\$18,297,716	Accessibility improvements on the Green Line D Branch to improve existing station entrances and increase accessibility.
				\$93,673,949	\$183,501,344	\$277,175,293	

#### 5307 - Preventive Maintenance

5307	Preventive Maintenance	N/A	Preventive Maintenance	\$12,500,000	\$37,500,000	\$50,000,000	Preventive maintenance activities eligible for FTA reimbursement.
				\$12,500,000	\$37,500,000	\$50,000,000	

5337 - Bi	ridge and Tunne	I					1
5337	Bridge and Tunnel	P0006	Gloucester Drawbridge Replacement	\$2,028,934	\$0	\$2,028,934	Replacement of Gloucester Drawbridge on the Rockport Line. The new bridge will consist of a moveable bascule span with two independent barrels, two spans of precast concrete box beams, a new steel superstructure, and a new micro-pile abutment.
5337	Bridge and Tunnel	P0008	Emergency Bridge Design / Inspection & Rating	\$1,796,261	\$0	\$1,796,261	Funding to support as-needed emergency design, inspection, and rating of bridges.
5337	Bridge and Tunnel	P0009	Bridges - Design	\$4,479,231	\$4,333,605	\$8,812,836	Design funding to support the repair, rehabilitation, and replacement of bridges across the system.
5337	Bridge and Tunnel	P0018	North Station Draw 1 Bridge Replacement	\$40,247,016	\$409,290,315	\$449,537,332	Replacement of North Station Draw 1 bridge structures and control tower. Includes construction of three new vertical lift bridges, and extension of existing station platform to accommodate track 11 and 12.
5337	Bridge and Tunnel	P0495	Bridge Bundling Contract	\$20,800,000	\$0	\$20,800,000	Replacement of six Commuter Rail bridges at Intervale Rd. in Weston; Bacon St. in Wellesley; High Line Bridge in Somerville; Lynn Fells Parkway in Melrose; Parker St. in Lawrence; and Commercial St. in Lynn.
5337	Bridge and Tunnel	P0551	Longfellow Approach	\$0	\$41,902,447	\$41,902,447	Rehabilitation of Longfellow Approach viaduct, Span 1 of the Longfellow Bridge, and station platforms at Charles/MGH Station. Includes new track, power, communication and signal systems, and additional emergency egress and redundant elevators.
5337	Bridge and Tunnel	P0552	Dorchester Avenue Bridge	\$8,000,000	\$0	\$8,000,000	Replacement of Dorchester Avenue Bridge and installation of a new tunnel roof beneath the bridge.
5337	Bridge and Tunnel	P0627	Systemwide Bridge Inspection and Rating	\$17,285,716	\$18,461,005	\$35,746,721	Program to support in-depth inspection and load rating of MBTA-owned bridges at regular intervals. Load ratings are used to establish a systemwide priority list of bridge repairs, rehabilitation, and replacement.
5337	Bridge and Tunnel	P0892	Saugus Drawbridge Replacement	\$8,000,000	\$0	\$8,000,000	Design of Saugus Drawbridge replacement on the Newburyport/Rockport Line. The new bridge would include a widened approach embankment, a new control house, signal upgrades, and relocation of submerged utilities.
5337	Bridge and Tunnel	P0907	East Street Bridge Replacement (Dedham)	\$16,000,000	\$0	\$16,000,000	Replacement of East Street bridge carrying the Franklin Line in Dedham. The new bridge will feature improved vertical and horizontal clearance, improved roadway features, and improved pedestrian and vehicle access to East Street.
5337	Bridge and Tunnel	P1107	Bridge Program Pipeline - Rehabilitation, Repair and Replacement	\$16,000,000	\$0	\$16,000,000	This program uses information provided through the bridge inspection and load rating program to design and construct prioritized bridge rehabilitation, repair, or replacement projects.
5337	Bridge and Tunnel	P1115	South Elm Street Bridge Replacement	\$4,095,886	\$0	\$4,095,886	Replacement of South Elm Street bridge on the Haverhill Line serving Commuter Rail, Downeaster, and Pan Am freight trains.
5337	Bridge and Tunnel	P1116	Systemwide Culvert Inspection and Load Rating	\$0	\$10,000,000	\$10,000,000	Inventory, inspection, and load rating of the MBTA's approx. 1,300 culverts supporting in-service structures systemwide. The scope of work includes an initial inspection to establish baseline condition, followed by inspection every five years.
5337	Bridge and Tunnel	R0074	Tunnel Inspection Systemwide	\$5,243,025	\$6,000,000	\$11,243,025	Ongoing inspection and rating of Red Line, Orange Line, Green Line, and Blue Line tunnels.
				\$143,976,069	\$489,987,372	\$633,963,441	

#### 5337 - Revenue Vehicles

5337	Revenue Vehicles	P0239	F40 Commuter Rail Locomotive Overhaul	\$35,391,580	\$0	\$35,391,580	Overhaul of 37 F40 Commuter Rail locomotives to improve reliability and reduce risk of unplanned maintenance.
5337	Revenue Vehicles	P0370	Green Line Train Protection	\$0	\$25,221,545		Procurement and installation of on-board and wayside equipment for a train protection and information system on the Green Line to mitigate red signal violations, train-to-train collisions, derailments, and intrusions into work zones.
5337	Revenue Vehicles	P0918	Rail Transformation - Future Rolling Stock	\$0	\$40,000,000	\$40,000,000	Planning funds to support future procurement of 25 electrified or decarbonized Commuter Rail rolling stock to replace the oldest vehicles in the fleet and support rail electrification.
5337	Revenue Vehicles		Rolling Stock - Locomotive and Coach State of Good Repair and Resiliency	\$6,000,000	\$0	\$6,000,000	Program to upgrade system reliability, correct deficiencies, standardize procedures, and increase equipment availability for Commuter Rail rolling stock through vehicle procurement, testing, service life enhancement, and overhauds.
5337	Revenue Vehicles	P1173	HSP46 Locomotive Overhaul	\$0	\$100,456,813	\$100,456,813	Midlife overhaul of 40 HSP46 Locomotives to improve reliability and reduce risk of unplanned maintenance.
				\$41,391,580	\$165,678,358	\$207,069,938	

#### 5337 - Signals and Systems

5337	Signals and Systems	P1315	Fairmount Line Infrastructure for Decarbonized Service	\$0	\$47,948,800	\$47,948,800	Delivery of infrastructure necessary to operate decarbonized service every 20 minutes on the Fairmount line.
15337	Signals and Systems	P0146	SCADA Upgrades	\$1,600,000	\$0	\$1,600,000	Upgrades to the Power Supervisory Control and Data Acquisition (SCADA) communication network from leased lines to the Security Wide Area Network (SWAN) to provide high-speed ethernet connection at 24 traction power substations and unit substations.
15337	Signals and Systems	P0261	Worcester Line Track and Station Accessibility Improvements	\$0	\$25,885,742	\$25,885,742	New third track and realignment of existing tracks on the Framingham and Worcester Commuter Rail lines between Weston and Framingham. Includes upgrades to Wellesley Farms, Wellesley Hills, Wellesley Square, and West Natick Stations.
5337	Signals and Systems	P0283	Green Line Central Tunnel Signal - 25 Cycle	\$3,840,000	\$0	\$3,840,000	Replacement of 25Hz track circuits with 100Hz track circuits in the Green Line central tunnel. Includes replacement of track circuit cable, trough, messenger, cases, relays, rectifiers, and signal power equipment.
15337	Signals and Systems	P0301	Systemwide Radio	\$73,952,935	\$39,033,557	\$112,986,492	Upgrade of the MBTA's existing two-way radio system used by MBTA Transit Police and operations personnel. This project includes mobile radios for heavy rail, light rail, and bus vehicles.
5337	Signals and Systems	P0591	Green Line Central Tunnel Track and Signal Replacement	\$0	\$4,317,546	\$4,317,546	Rehabilitation and upgrades to signal and track infrastructure within the Green Line Central Tunnel. Includes central instrumentation houses and signal, track, and power systems at Copley, Park Street, and Government Center.
5337	Signals and Systems	P0904	Systemwide Asset Management Program Phase 3	\$7,600,000	\$0	\$7,600,000	Continuation of implementing the Asset Management Program in accordance with FTA requirements. Includes professional services, audit, inventory, condition assessments, updates to the National Transit Database, and Transit Asset Management Plan.
5337	Signals and Systems	P1104	Traction Power Substation Replacement	\$5,760,000	\$4,000,000	\$9,760,000	Complete replacement of electrical systems and strucural, mechanical, and plumbing improvements at aging traction power substations (TPSS). This scope also includes a TPSS Design Guide to standardize future improvements.

5337	Signals and Systems	P1132	Ashmont Branch Track Replacement	\$4,000,000	\$0		Design and construction for partial reconstruction of track and track support systems on the Ashmont Branch of the Red Line.
5337	Signals and Systems	P1139	Asset Management Program	\$23,013,222	\$22,103,573	\$45,116,794	Implementation of the MBTA Asset Management Program in accordance with FTA requirements, includeing asset inventory and condition assessments, updates to the National Transit Database and the Transit Asset Management Plan, and FAMS implementation.
5337	Signals and Systems	P1260	Track Improvement Program – Orange Line	\$71,975,633	\$0	\$71,975,633	Implementation of the MBTA Track Improvement Plan to remove speed restrictions on the Orange Line.
				\$191,741,790	\$143,289,218	\$335,031,008	

5337 - Stations and Facilities

#### Consolidation of four Green Line B-Branch stops into two new, fully accessible stations: Babcock Street and tations and 5337 P0003 Green Line B Branch Consolidation \$295.716 Ś0 \$295.716 Amory Street. Features include accessible boarding and exits, security and lighting upgrades, and longer acilities platforms to accommodate Type 10s. Stations and Design and construction funding for elevator improvements on the rapid transit system. Individual elevator \$0 5337 0066 Elevator Program \$1,485,474 \$1,485,474 acilities projects are separated into unique projects once construction stage is reached. Design and construction of 3 new elevators to provide vertical transfers from the Red Line northbound to the Stations and owntown Crossing Vertica 5337 0074 \$62,208,880 \$0 \$62,208,880 Orange Line southbound platform, and from the Orange Line northbound to the Red Line southbound Facilities Transportation Improvements Phase 2 platform at Downtown Crossing. Oak Grove Station Vertical Transportation Accessibility upgrades at Oak Grove station, including three elevators, replacement of one existing elevator, Stations and \$0 5337 P0076 \$800,000 \$800,000 acilities sidewalk repairs, and wayfinding and station-brightening improvements nprovement Stations and Braintree and Quincy Adams Garage Full rehabilitation of the Red Line's Braintree Station and Quincy Adams Station parking garages to extend the \$11,576,003 5337 0087 \$11,576,003 \$0 acilities Rehabilitation operable service life of each facility by forty years. Accessibility improvements at Newton Highlands Station on the Green Line D Branch, including three ramps tations and ewton Highlands Green Line Station \$53,746,44 5337 0129 \$0 \$53,746,443 covered with canopies, raised platforms, one at-grade pedestrian crossing, site lighting, new platform acilities Accessibility Project shelters, and covered bike racks Accessibility and state of good repair improvements at Forest Hills Station. Includes elevator replacement, tations and 5337 0163 \$26,089,764 \$0 \$26,089,764 orest Hills Improvement Project new elevator/stair tower to connect upper and lower busway, accessibility upgrades, station brightening, acilities wayfinding, and platform repairs. Upgrade Symphony Station to a modern and fully accessible passenger facility. Includes construction of four new elevators, raised platforms, accessible restrooms, installation of egress stairs, and upgraded fire alarm tations and 5337 0168 symphony Station Improvements \$0 \$0 \$0 acilities systems. Complete modernization of Wollaston Station, demolition of the top 3 levels of the Quincy Center parking Vollaston Station / Quincy Center Garag tations and garage, replacement of one elevator at Quincy Center, and construction of an accessible walkway from Burgir 5337 0169 \$2,535,477 \$0 \$2,535,477 Demolition acilities Parkway to Quincy Center Station. Reconstruction and modernization of Natick Center Station, including new fully accessible high-level side Stations and 5337 0174 atick Center Station Accessibility Project \$6,047,999 \$0 \$6,047,999 platforms, elevators, ramps, stairs, lighting, wayfinding, streetscape, upgraded tracks, and connection to the acilities Cochituate Rail Trail. Reconstruction and modernization of Winchester Center Station including new fully accessible high-level side Stations and 5337 0179 Winchester Center Station \$10,264,133 \$0 \$10,264,133 platforms, elevators, ramps, stairs, lighting, signage and wayfinding, streetscape improvements, and acilities upgraded track infrastructure. Includes high-level center platform with elevators, ramps, and stairs; replacement and realignment of station Stations and Vorcester Union Station Accessibility and 5337 0395 \$2,841,410 \$0 \$2,841,410 tracks; and construction of a new rail crossover to improve accessibility, operations, and service capacity at acilities nfrastructure Improvements Worcester Union Station. Rehabilitation of communications rooms along the Blue Line to bring them into a state of good repair and Stations and Blue Line Communications Rooms 5337 P0631b \$0 \$16,374,165 \$16,374,165 mprovements acilities support the implementation of Fare Transformation Improvements to Codman Yard, including in-kind replacement of existing infrastructure and the expansion of Codman Yard Expansion and Stations and 5337 \$39,009,110 0679 \$0 \$39,009,110 acilities storage capacity to support the new Red Line trains mprovements Continuation of Ruggles Station Improvements to address accessibility, code-compliance, and state-of-good Stations and \$99,625,355 5337 0856 Ruggles Station Improvements Phase 2 \$0 \$99,625,355 repair issues. Includes repair, reconstruction, and improvements to platforms, entrances, stairs, elevators, Facilities amps, restrooms, and wayfinding. Stations and E Branch Accessibility & Capacity Improvements to surface track and stations on the E branch of the Green Line, extending from the 5337 0923 \$0 \$68,752,659 \$68,752,659 acilities mprovements Northeastern Station portal to Heath Street Station Track realignments, accessibility improvements, potential consolidation, and station and traction power Stations and Branch Accessibility & Capacity 5337 0924 \$0 \$56,550,959 \$56,550,959 acilities upgrades along the Green Line B branch between Blandford St. and Warren St. Stations mprovements tations and iverside Vehicle Maintenance Facility Upgrades to existing hoists, pits, and mezzanines at the Riverside Vehicle Maintenance Facility to 5337 \$0 \$38,592,184 \$38,592,184 P1010 acilities Modifications & Upgrades accommodate the future Type 10 fleet. tations and ynn Station Parking Garage \$13,470,767 5337 1025 \$4,879,470 \$18.350.236 Decommissioning of the closed Lynn Station parking garage acilities Deconstruction Demolition of the Lake Street facility and reconfiguration into an expanded yard. The site will be designed to maximize train storage, streamline yard operations, and eliminate a sharp curve in anticipation of the larger Stations and ake Street Complex Demolition and \$0 \$4,989,028 5337 \$4,989,028 1101 acilities Reconfiguration Type 10 light rail fleet. Funds to design and construct a new, fully accessible Commuter Rail maintenance facility, storage yards, and tracks in Billerica, with eight service bays, wash bay, overhead bridge crane, office space, and employee Stations and 5337 1171 Billerica MOW Repair and Storage Facility \$0 \$7,948,90 \$7,948,908 acilities amenities tations and Establishment of a dedicated storage and office facility at the Codman Yard to house staff and to store, Codman Yard Storage and Office Facility 5337 P1222 \$0 \$7,650,400 \$7,650,400 acilities repair, and maintain critical equipment Various improvements to lighting, CCTV placement, wayfinding and illuminated exit signage, Braille signage, floor finishes, benches, and 24 staircases at Park Street. Includes artwork restoration and reopening of Stations and Park Street Station Wayfinding \$1,610,880 5337 \$0 \$1,610,880 acilities mprovements Tremont Street's Temple Place stairs. Design funding for new elevators, stairs, platform, canopy, and architectural improvements to the station and Stations and ynn Station and Parking Garage mprovements Phase II 5337 20071 \$2,581,808 \$0 \$2,581,808 the intent to acquire and demolish structures under station's viaduct. Existing parking garage will also be cilities replaced by surface parking. \$241.433.664 \$298,493,326 \$539.926.990 5337 - Preventive Maintenance

5337	Preventive Maintenance	N/A	Preventive Maintenance	\$35,287,500	\$105,862,500	\$141,150,000	Preventive maintenance activities eligible for FTA reimbursement.
				\$35,287,500	\$105,862,500	\$141,150,000	

#### 5339 - Bus Program

5339	Bus Program	P0911	Hybrid Bus Overhaul (New Flyer XDE40 - SR1983)	\$0	\$28,667,507	\$28,667,507	Midlife overhaul of major systems and components of 156 40ft hybrid buses to ensure reliable and safe operations that meet FTA requirements. Also includes condition assessment activities for 175 40ft CNG buses, and 45 60ft hybrid buses.
5339	Bus Program	P1154	CNG Bus Overhaul (New Flyer XN40 - SR 1982)	\$12,116,517	\$3,261,941	\$15,378,458	Planning for the midlife overhaul of 175 40-foot New Flyer CNG buses delivered 2016 to 2017. These buses require overhaul of major systems and components to ensure continued reliable and safe operations and to meet FTA service life requirements.
	•			\$12,116,517	\$31,929,448	\$44,045,965	

Note: Project descriptions and dollar amounts are preliminary only and are provided for informational purposes. In many cases, the scopes of work and project budgets will become more fully developed as the design process proceeds and is completed. The MBTA may also opt to fund a project from a different FTA funding source based on the timing of projects and the availability of FTA funds.

#### Projects Potentially Funded by Federal RRIF/TIFIA Loans

RRIF/TIFIA Financing	IA Financing IP0671a IQuincy Bus Facility Modernization		Potential RRIF/TIFIA loan - amount and timing to be determined	Relocation and replacement of the Quincy Bus Maintenance Facility. The new, modernized facility will expand capacity and includes the infrastructure necessary to support the MBTA's first battery-electric bus (BEB) fleet.
RRIF/TIFIA Financing	P0952	Widett Layover and Maintenance Facility	Potential RRIF/TIFIA loan - amount and timing to be determined	Preliminary design for a Commuter Rail layover facility at Widett Circle in South Boston.
RRIF/TIFIA Financing				Replacement of North Station Draw 1 bridge structures and control tower. Includes construction of three new vertical lift bridges, and extension of existing station platform to accommodate track 11 and 12.
RRIF/TIFIA Financing	P0170	Newton Commuter Rail Stations Design	Potential RRIF/TIFIA loan - amount and timing to be determined	Design of a fully accessible Commuter Rail station in Newton with 400' platform and the potential for either a double-sided or center-running high-level platform.
RRIF/TIFIA Financing	P0178	South Attleboro Station Improvements	Potential RRIF/TIFIA loan - amount and timing to be determined	Design for the construction of a new South Attleboro station, to include 800-ft. high-level platforms, three elevators, platform access ramps, a bus bay, egress to Newport Ave., additional parking, improved vehicular circulation, updated lighting.
RRIF/TIFIA Financing	hancing P0863 South-Side Commuter Rail Maintenance Potential RRIF/TIFIA loan - amount and timing to be determined			Assessment and design for a new Commuter Rail maintenance and layover facility at Readville. Includes design for future construction of multiple maintenance bays within Yard 1 and Upper Yard 2.

Note: The MBTA is exploring the use of federal loans through the Build America Bureau to finance certain capital projects at a lower interest rate than traditional tax-exempt bonds. This includes loans under the Railroad Rehabilitation & Improvement Financing (RRIF) and Transportation Infrastructure Finance and Innovation Act (TIFIA) programs. The projects listed above are being considered for this program, subject to the approval of funding through the CIP process. Additional project and funding information will be provided through a future TIP/Amendment if federal grant funds or loans are utilized.

# APPENDIX N - TWENTY-ONE (21) DAY PUBLIC REVIEW - NOTICE OF AVAILABILITY AND PUBLIC COMMENTS



Rebecca Coletta, President Mary Waldron, Executive Director

(508) 583-1833

70 School Street, Brockton, MA 02301

www.oldcolonyplanning.org

## NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD FFY 2024-2028 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AMENDMENT 3 FFY 2025-2029 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Old Colony Planning Council (OCPC) is making the FFY 2024-2028 TIP Amendment 3 and Draft FFY 2025-2029 Old Colony Transportation Improvement Program (TIP) available for a Public Review and Comment. Copies will be available at <a href="https://oldcolonyplanning.org">https://oldcolonyplanning.org</a> and/or upon request. This process will be used as Brockton Area Transit Authority's (BAT) public participation process. BAT, the Federal Transit Administration (FTA) Section 5307(c) applicant, has consulted with the Old Colony Metropolitan Planning Organization (MPO) and concurs that the public involvement process adopted by the MPO for development of the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for the regular Section 5307, Urbanized Area Formula Program, grant applications including the provisions for public notice and the time established for public review and comment. Public notice of public involvement activities and time established for public review and comments on the TIP will satisfy the program of projects (POP) requirements. The public discussion of the TIP at meetings of the Old Colony Joint Transportation Committee (ITC) and Old Colony MPO satisfies the Program of Projects (POP) public hearing requirements of the FTA. A public meeting of the Old Colony MPO is scheduled for May 21, 2024 at 10:00 AM. Please contact William McNulty at (774) 539-5103 for information.

Please send written comments to: William McNulty Old Colony Planning Council 70 School Street, Brockton, MA 02301 wmcnulty@ocpcrpa.org

# The Enterprise

## **Public Notices**

Originally published at enterprisenews.com on 04/17/2024

FFY2024-2028 TIP Amendment 3 LEGAL NOTICE NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD FFY 2024-2028 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AMENDMENT 3 FFY 2025-2029 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Old Colony Planning Council (OCPC) is making the FFY 2024-2028 TIP Amendment 3 and Draft FFY 2025-2029 Old Colony Transportation Improvement Program (TIP) available for a Public Review and Comment. Copies will be available at https://oldcolonyplanning.org and/or upon request. This process will be used as Brockton Area Transit Authority's (BAT) public participation process. BAT, the Federal Transit Administration (FTA) Section 5307(c) applicant, has consulted with the Old Colony Metropolitan Planning Organization (MPO) and concurs that the public involvement process adopted by the MPO for development of the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for the regular Section 5307, Urbanized Area Formula Program, grant applications including the provisions for public notice and the time established for public review and comment. Public notice of public involvement activities and time established for public review and comments on the TIP will satisfy the program of projects (POP) requirements. The public discussion of the TIP at meetings of the Old Colony Joint Transportation Committee (JTC) and Old Colony MPO satisfies the Program of Projects (POP) public hearing requirements of the FTA. A public meeting of the Old Colony MPO is scheduled for May 21, 2024 at 10:00 AM. Please contact William McNulty at (774) 539-5103 for information.

Please send written comments to: William McNulty Old Colony Planning Council 70 School Street, Brockton, MA 02301 wmcnulty@ocpcrpa.org

AD# 10066356 BE 04/17/2024

## The Patriot Ledger

## **Public Notices**

Originally published at patriotledger.com on 04/17/2024

FFY 2024-2028 TIP Amendment 3 LEGAL NOTICE NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD FFY 2024-2028 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AMENDMENT 3 FFY 2025-2029 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Old Colony Planning Council (OCPC) is making the FFY 2024-2028 TIP Amendment 3 and Draft FFY 2025-2029 Old Colony Transportation Improvement Program (TIP) available for a Public Review and Comment. Copies will be available at https://oldcolonyplanning.org and/or upon request. This process will be used as Brockton Area Transit Authority's (BAT) public participation process. BAT, the Federal Transit Administration (FTA) Section 5307(c) applicant, has consulted with the Old Colony Metropolitan Planning Organization (MPO) and concurs that the public involvement process adopted by the MPO for development of the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for the regular Section 5307, Urbanized Area Formula Program, grant applications including the provisions for public notice and the time established for public review and comment. Public notice of public involvement activities and time established for public review and comments on the TIP will satisfy the program of projects (POP) requirements. The public discussion of the TIP at meetings of the Old Colony Joint Transportation Committee (JTC) and Old Colony MPO satisfies the Program of Projects (POP) public hearing requirements of the FTA. A public meeting of the Old Colony MPO is scheduled for May 21, 2024 at 10:00 AM. Please contact William McNulty at (774) 539-5103 for information.

Please send written comments to: William McNulty Old Colony Planning Council 70 School Street, Brockton, MA 02301 wmcnulty@ocpcrpa.org

AD# 10066261 PL 04/17/2024

## APPENDIX O - TIP PROJECT REVISION AND DEFINITION PROCEDURES, AND APPROVED ADJUSTMENTS, ADMINISTRATIVE MODIFICATIONS, AND AMENDMENTS

## MassDOT State Transportation Improvement Program (STIP) Project Revision Definitions and Procedures

The STIP is a "living" document and is likely to be modified during the course of the year. The definitions and procedures outlined in this section are followed when project based revisions to the STIP are necessary.

### **Definitions of STIP Revision Procedures**

**Amendment**: A revision to the State Transportation Improvement Program (STIP) that requires public review and demonstration of financial constraint. The public process for a STIP amendment requires a publicly advertised 21-day public comment period and for MassDOT to address any public commentary prior to sending to the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) for review and approval.

**Adjustment**: A revision to the STIP that is does not require a public process, but that is required to be included in a MassDOT STIP action with a demonstration of financial constraint for FHWA/FTA approval.

**Administrative Modification**: A revision to the STIP that is minor enough in nature to require neither a public process nor FHWA/FTA approval, but that does involve a notification to federal partners.

## Highway Project STIP Revision Definitions and Procedures

Type of	Definition	Procedure	Notes
Revision			
Major Project Cost Change Increase or decrease of \$500,000 or greater for projects programmed under \$5,000,000 and greater than 10% of the total cost for projects programmed over \$5,000,000.		Amendment	The "increase" or "decrease" in cost is relative to the Total Federal Participating Cost (TFPC) of a project.
Minor Project Cost Change Increase or decrease of \$499,999 or less for projects programmed under \$5,000,000 and less than 10% of the total cost for projects programmed over \$5,000,000.		Adjustment	See above.
Project Description Change	rojectChange in the description of the project as itescriptionis listed in the STIP.		Project description changes are treated as administrative modifications for minor changes (e.g. spelling errors, more detailed descriptions, adding mile-markers, etc.).
Major ProjectA revision to the project scope large enough to necessitate an additional review by MassDOT's Project Review Committee (PRC) – typically accompanied by major project cost change.		Amendment	In some cases, a major scope change will require the initiation of a new project through MassDOT's Project Initiation Form (PIF), and review/approval by PRC. This would require deactivation and removal of the currently programmed project.
Minor Project Scope Change	A minor revision to the project scope that does not significantly alter the original PRC-approved scope of work.	Adjustment	In many cases, changes in this category will also include a minor cost change.
Project Addition			Project additions are treated as amendments if the project was not part of any previously approved STIP that has been vetted through the public process.
Project Removal	The removal of a project in any federal fiscal year of the active TIP.	Amendment	Exception: if a project is removed from an active TIP or the STIP due to it being previously advanced/advertised, or is moved to the statewide list from a regional TIP, the action would be considered an adjustment.
Change in Funding Source	A change in the project's funding source, including federal and non-federal sources which fall within the project cost change revisions listed above.	Adjustment	Changes in funding sources for projects are permissible for advertisement purposes if the FHWA Division Office has been consulted.
Change in A change in any item listed in the Additional "Additional Information" column of the STIP not covered in any other item listed here (e.g. earmark details, project proponent, etc.)		Administrative Modification	N/A
Change in Year of Programming Moving a currently programmed project earlier or later than an originally programmed year.		Amendment	Changes to a project delivery schedule (advancement or delay) requires an amendment for the change in programmed FFY.

### **Transit Project STIP Revision Definitions and Procedures**

Type of	Definition	Procedure	Notes
Revision		• • · ·	
Major Project Cost Change	Increase or decrease of \$500,000 or greater for projects under \$5,000,000 and greater than 10% of the total cost for projects exceeding \$5,000,000.	Amendment	The "increase" or "decrease" in cost is relative to the combined federal and non-federal aid participating cost of the project.
Minor Project Cost Change	Increase or decrease of \$499,999 or less for projects under \$5,000,000 and less than 10% of the total cost for projects exceeding \$5,000,000.	Adjustment	See above.
Project Description Change	Change in the description of the project as it is listed in the STIP.	Adjustment or Administrative Modification	Project description changes are treated as administrative modifications for minor changes (e.g. spelling errors, more detailed descriptions, etc.).
Major Project Scope Change	A revision to the project scope deemed large enough to require public review and comment (e.g. changing the number of stations)	Amendment	In many cases, changes in this category will also include a major cost change.
Minor Project Scope Change	A minor revision to the project scope that does not significantly alter the original scope of work (e.g. changes to the bus model for vehicle replacement projects).	Adjustment	In many cases, changes in this category will also include a minor cost change.
Project Addition	The programming of a new project in any federal fiscal year of the current TIP.	Amendment or Adjustment	Project additions are treated as amendments if the project was not part of any previously approved STIP that has been vetted through the public process.
Project Removal	The removal of a project in any federal fiscal year of the current TIP.	Amendment	Exception: if a project is removed from a TIP or the STIP due to it being previously advanced/advertised, or is moved to the statewide list from a regional TIP, the action would be considered an adjustment.
Change in Funding Source	Change in the funding source, including federal and non-federal sources that fall within project cost change revisions listed in the first two rows.	Adjustment	Changes in funding sources for projects are permissible for obligation purposes with written notice from the FTA region office.
Change in Year of Programming	Moving a currently programmed project earlier or later than the originally programmed year.	Amendment or Adjustment	Note: Federal funds shall be programmed in the federal fiscal year in which the award will occur.
			Changes in year of programming are only treated as adjustments if they involve advancing federal funds to align with the year of the grant award.

## **Exceptions**

Although MassDOT typically holds a 21-day public comment period for amendments, in the event of extenuating circumstances beyond the agency's control, the comment period may be shortened or waived in consultation with FHWA Division Office and/or the FTA Regional Office. Additionally, MassDOT may make exceptions to the procedures outlined above and treat amendments as adjustments and/or adjustments as administrative modifications, but these exceptions will also require coordination with and concurrence by MassDOT's federal partners and the affected MPO.