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Executive Summary

Well-run far reaching and sustainable public transportation is critical to the future of the Commonwealth. In December 2018, the *Governor's Commission on the Future of Transportation*, after nearly a year's worth of work, released its recommendations to meet the transportation future. Their first recommendation was to “*Prioritize investment in public transit as the foundation of a robust, reliable, clean and efficient transportation system.*”¹ The Commission chose to lead with this “foundational recommendation” because public transit is the most efficient and sustainable way to move people as they go about their daily lives.

In Massachusetts, outside of the Greater Boston region, fifteen Regional Transit Authorities (RTAs) provide public transportation service to millions of Bay Staters. For those who ride the RTAs, they provide a lifeline. They are their connections to work, school, healthcare, grocery stores, social activities, substance use treatment, and family support networks. They help people get where they need to go. And for the communities they serve, and the businesses and institutions that rely on RTAs for commuting employees, students, customers and visitors, RTAs provide an essential service.

The Task Force on Regional Transit Authority Performance and Funding was created in the fall of 2018 by Outside Section 72 of the FY 2019 Massachusetts State Budget. The Task Force's purpose is to investigate the challenges and opportunities facing transit service providers, specifically charging its members to investigate how the RTAs can:

- best provide and improve transit services that meet identified community needs;
- conduct regular service planning to maximize ridership using available resources; and
- ensure that fares, local contributions, and other revenues cover an appropriate share of costs.

The Task Force statute specified what the composition of its membership should be, namely to include elected members of the state legislature, the MassDOT Rail and Transit Administrator, current RTA Administrators, representatives of municipal governments, and members of the business, rider, and advocacy communities (see Appendix A for the full list of appointed members). The Task Force met on an almost weekly basis from September 2018 through March 2019 to discuss a number of topics pertaining to the RTAs (see Appendix B for a summary of Task Force meetings). This report reflects the diverse views of the Task Force and general consensus achieved on most issues. The Task Force tried to operate through a consensus process, so not every Task Force member supported every recommendation.

The importance of public transit cannot be overstated. Unpredictable funding has limited efforts to improve innovation and modernization to meet 21st century demands. Despite an increase in funding for Fiscal Year 2019, as of the time of this report, most RTAs are facing continued budget challenges.

¹ Commission on the Future of Transportation, “[Choices for Stewardship: Recommendations to Meet the Transportation Future](#),” December 2018.

Stabilizing, modernizing and improving the RTAs needs to be a priority for the Commonwealth. However, RTAs need to continue to prove their relevance to the communities they serve who are paying the bill. This report lays out a vision for the future of the RTAs by discussing how we can improve and innovate in five categories: **Investment & Performance, Accountability, Service Decisions, Quality of Service,** and **Environmental Sustainability.**

In addition to the first foundational recommendation, the recently released report of the *Governor's Commission on the Future of Transportation* sets forth several additional well-structured recommendations that directly bear on the work of the Task Force:

9. "Establish a goal that beginning in 2040, all new cars, light duty trucks, and buses sold in Massachusetts will be electric or use another technology that meets the same emissions standards;"
14. "Use land use, economic development, and transportation policies and investment to enable Gateway Cities and the regions they anchor throughout the Commonwealth to compete for the growing number of residents and jobs;"
16. "Provide better mobility options in rural communities through reimagined public transportation, community transportation services, and public/private partnerships;"
17. "Prepare MassDOT and other transportation-related entities to effectively oversee a changing transportation system;" and
18. "Develop a fiscally sound and responsible transportation resource plan to operate, maintain, and upgrade the transportation system."

(See the full report of the [Governor's Commission on the Future of Transportation](#) for the Initial Steps corresponding to the above recommendations.)

Individually and taken together, the above recommendations highlight the importance of a strong network of regional public transportation to better serve residents, to address climate change, to ensure access to jobs, to act in partnership, and to be managed in a way that is accountable and forward-looking. The recommendations of the *Governor's Commission on the Future of Transportation* informed the recommendations included in this report.

The Task Force on Regional Transit Authority Funding and Performance provides this report and recommendations to help guide the Executive and Legislative branches of state government as we set a new course for public transportation across Massachusetts.

Thus, we offer the following recommendations:

Investment & Performance:

1. *The legislature should fund the RTAs in fiscal year 2020 with a base of \$90.5 million² in state contract assistance. Each subsequent year increase the state contract assistance by an automatic inflator³.*
2. *All state contract assistance will be connected to performance targets via a Memorandum of Understanding (MOU). MOUs will be bilaterally negotiated between MassDOT and each RTA and will identify performance targets in the following categories: ridership; customer service and satisfaction; asset management; and financial performance (incorporating a number of factors including farebox recovery ratio).*
3. *Provide communities with the tools they need to increase local contributions to RTA funding, including through regional ballot initiatives.*
4. *Establish a Human Services Transportation working group to explore ways to better collaborate, improve service and save money through the brokerage system.*

Accountability:

5. *Maintain local control of day-to-day operations and management of the RTAs, while standardizing performance metrics for level and quality of service and increasing regional collaboration to present a statewide vision for public transportation in the Commonwealth. MassDOT should include the RTAs as partners in statewide planning and decision making.*
6. *There should be a reinvigorated RTA Council that fosters greater collaboration, promotes best practices, and provides a statewide vision for RTAs.*

Service Decisions:

7. *RTAs will continue to succeed by understanding their markets and by aiming to have their service networks meet the current and future mobility needs of their region as well as support connectivity to other regions where possible. This effort will be guided by (1) the completion or updating of Comprehensive Regional Transit Plans (CRTPs) every five years; (2) the evaluation of current service based on RTA service policies and standards; and (3) participation in local and regional planning processes.*
8. *RTAs should identify routes in their service areas where there is a demonstrated community need for seven day a week and evening and night service.*
9. *In high-density areas, 0.25 miles, or 5 minutes' walk time, is the limit of a fixed-bus route's typical "service area." In lower-density areas and to supplement fixed route service, RTAs should seek to provide on-demand service, microtransit service, or partner with Transportation Management Associations, municipal shuttles, Councils on Aging, Transportation Network Companies (TNCs), bikeshare companies and other mobility services to meet demonstrated community needs.*
10. *RTAs should develop pilot programs that include innovative transit delivery models. By piloting different transit models, the RTAs will be able to determine what will improve transit delivery in their service area.*
11. *In communities that sit on the border of two RTAs, RTAs should work together to increase access to cross RTA services in order to better unify the Commonwealth's public transportation and increase access to more robust services.*

² This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

³ This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

12. *RTAs should work with cities and towns to provide a safe, accessible, and comfortable walking and biking environment around all bus stops, as well as safe, accessible, and comfortable bus stops.*
13. *RTAs should provide reliable paratransit service in compliance with the Americans with Disabilities Act (ADA) requirements and consider the feasibility of offering additional services beyond ADA that meet the needs of their communities. RTAs should also implement an easy-to-use scheduling system using technology that improves the customer experience.*
14. *MassDOT and the RTAs should carefully utilize farebox recovery ratio as a performance metric, considering the ratio in context with other factors and balancing the need to maintain the affordability of service.*
15. *Every three years, each RTA should conduct a fare equity and market analysis and present the findings to their Advisory Boards and MassDOT. This process should inform any fare increases or changes in fare policy.*
16. *RTAs should modernize and standardize fare collection by partnering with the MBTA and adopting the new Automated Fare Collection, or AFC 2.0 system, on a statewide basis, while still maintaining an accessible system for cash customers as appropriate.*
17. *RTAs will perform regular analysis, community outreach, and actively participate in the Massachusetts Environmental Policy Act (MEPA) process to: (a) understand employment patterns, (b) identify opportunities to establish partnerships, and (c) explore potential service adjustments and potential new service to meet demand.*

Quality of Service:

18. *RTAs should determine which routes are prone to bus crowding and address the issues that cause bus crowding.*
19. *RTAs should ensure fixed routes, or on demand services where appropriate, maximize multimodal connectivity. To this same end, new infrastructure which addresses first-last mile problems, especially sidewalks, bike lanes, racks, bikeshares, and/or lockers, should be prioritized. RTAs should work in-tandem with their planning partners to participate in transit-oriented development and engage with new developments to provide transportation solutions to new developments and housing as it comes online.*
20. *All RTAs should have an easily accessible website and a robust social media presence to allow for direct communication with their riders or potential riders.*
21. *MassDOT should collaborate with the RTAs and the MBTA to adopt consistent use of statewide tables, maps and abbreviations and work towards greater integration between RTA and MBTA information services where appropriate.*
22. *RTAs should formally include the public in decision-making on matters related to new projects, fare changes and service planning. In doing so, RTAs should strive to include potential or would-be riders as well as current riders through intentional outreach to large employers, schools and other venues.*

Environmental Sustainability:

23. *In order to reduce greenhouse gas emissions from the transportation sector by at least 40 percent by 2040, the RTAs and MassDOT should determine the mode shift that will be required to meet that goal, as well as work with local partners to create a long term environmental sustainability plan.*
24. *In keeping with the state's environmental goals related to transportation, all public transit bus purchases should be zero-emissions by 2035.*

Introduction

The fifteen Regional Transit Authorities (RTAs) provide bus service for millions of Bay Staters each year. RTAs serve a vital role in communities across Massachusetts. For residents, employees, students and others who choose to, or must rely on public transit, RTAs are often-times the only option. The history of public transit in Massachusetts and elsewhere suggests that for service to succeed, it must be convenient, reliable, affordable and efficient.

Today, RTA service is highly variable. But with higher standards - and the means and mandate to achieve them and measure them - access to opportunity will open up for people, with benefits to the economy, congestion, pollution and social mobility.

What would it take to get us there?

This report lays out a vision and achievable recommendations for the Commonwealth and the RTAs. It all starts with **investment and performance**, maximizing all funding sources, including federal, state, local, farebox and own-source revenue, to grow ridership. Even with greater and more predictable investment accompanied by a commitment to high quality transit service, the RTAs must also strategically improve and innovate. In addition to recommending increased and predictable funding linked to performance, this report also proposes the adoption of recommendations and best practices in the following four additional categories: **accountability**, **service decisions**, **quality of service**, and **environmental sustainability**.

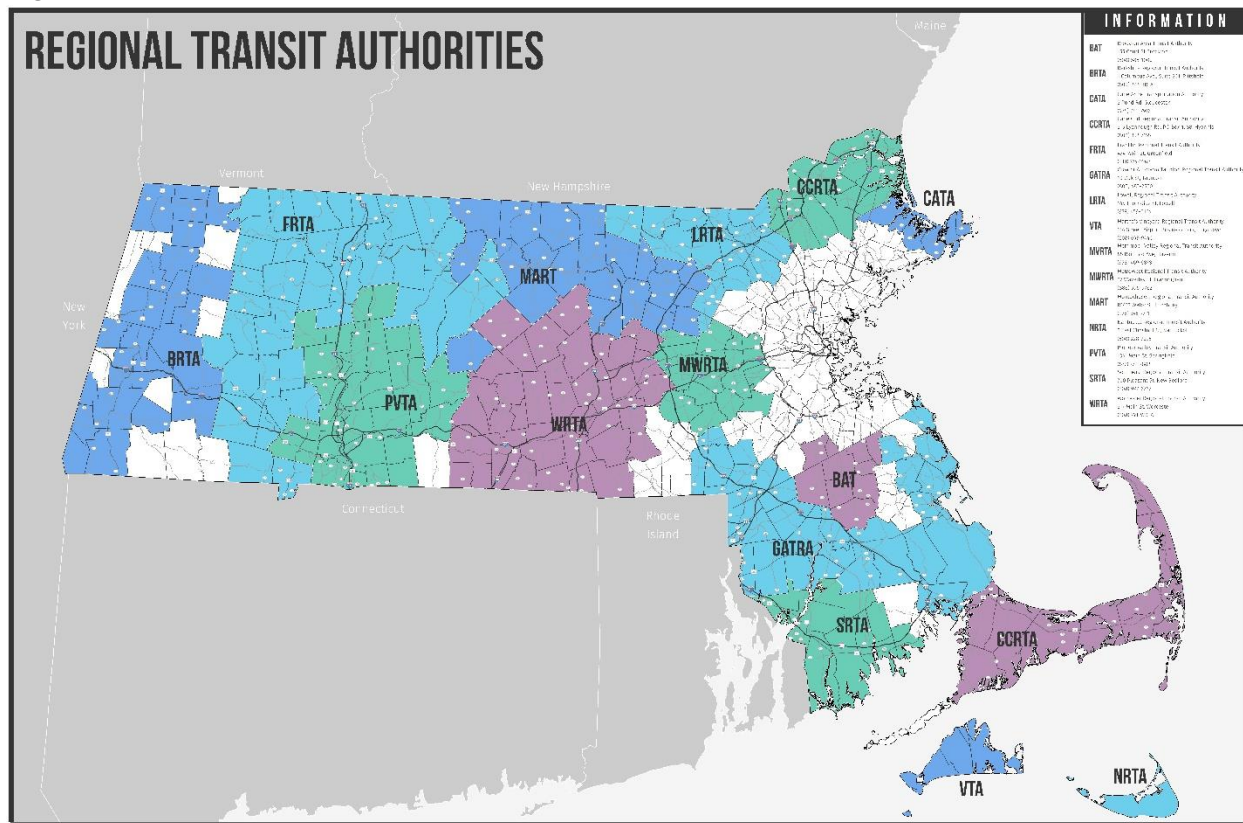
This report reflects the diverse views of the Task Force and general consensus achieved on most issues. The Task Force tried to operate through a consensus process, so not every Task Force member supported every recommendation.

State of the Regional Transit Authorities

[Massachusetts General Laws Chapter 161B](#) establishes the RTAs and defines roles and responsibilities for agencies, municipalities, and the state.⁴ The RTAs are controlled by the municipalities in which they operate. Each RTA is governed by an Advisory Board composed of member communities’ chief elected officials or their designees, as well as one representative of the disabled commuter population and one representative of the local rider community population. Advisory Boards appoint administrators, establish bylaws, and approve budgets. Advisory Boards also approve changes to service and fare adjustments.

Chapter 161B does give the Commonwealth certain oversight responsibilities. RTAs can issue Revenue Anticipation Notes, but not long- term indebtedness without approval by the MassDOT Secretary. RTAs must also report various operating and performance data to MassDOT for annual reports to the Legislature.

Figure 1. Massachusetts RTAs and their service areas⁵



There are currently fifteen RTAs in Massachusetts serving diverse communities from the Berkshires and Franklin County, to the cities of Worcester and Springfield, and to the Cape and

⁴ The General Court of the Commonwealth of Massachusetts, “[General Law – Part I, Title XXII, Chapter 161B, Section 6](#),” accessed March 4, 2019.

⁵ Commonwealth of Massachusetts, “[Public Transportation in Massachusetts](#),” accessed January 9, 2019.

Islands (see Appendix C for a full list of the RTAs). Although RTAs manage their own operations, they are required to contract with private companies to operate their services. For these reasons, RTAs tend to have relatively small staffs, but need to excel at contract negotiation and management. The extent of service offered varies widely; some RTAs provide night and weekend services, but others do not.

During FY2018, the RTAs provided nearly 28 million unlinked fixed-route passenger (i.e. bus) trips. The most active RTAs are the PVTA, which provided 39% of all trips, the WRTA, providing 11% of all trips, and the BAT and the SRTA, which each provided about 9% of all trips.⁶

In addition to providing regular mass transit services, six RTAs (BRTA, CATA, CCRTA, FRTA, GATRA, and MART) serve as regional transportation brokers delivering Non-Emergency Medical Transportation Services to consumers under a contract with the Massachusetts Executive Office of Health and Human Services (EOHHS)/Human Services Transportation Office (HST). Under this contract in FY2018, Massachusetts spent approximately \$238 Million on 8.6 million trips.⁷

The RTAs are funded through a combination of state and Federal funding, local assessments, fare revenue, and other own-source revenue. Each RTA's budget breaks down differently, but on average, the RTAs receive 39 percent of their operating funding from the state, 24 percent from Federal grants, 20 percent from local funds, 13 percent from fare revenues, and 4 percent from other sources.⁸

State operating funding (known as State Contract Assistance or "SCA") is provided as a pass through to the RTAs. The total amount of SCA funds provided in the state budget is distributed among the RTAs according to an allocation formula that was developed with the RTAs. In FY2014, the RTAs were "forward funded," meaning state operating assistance to RTAs is now provided in the current fiscal year and not as a reimbursement for service already provided. In FY2014, the RTAs received a base funding level of \$67.6 million, plus an additional \$17.1 million for a debt repayment bonus. In FY2015-2018, the RTAs received \$80 million, \$82 million, \$82 million, and \$80.4 million respectively. In FY2019, the RTAs received \$88 million in total, with \$82 million as base funding, \$4 million in competitive innovation funds, and \$2 million for debt relief payment to PVTA and WRTA.

For capital expenses, the picture is quite different as RTA capital budgets mainly use state and Federal funds. RTA capital funding is used for transit infrastructure like buses and associated equipment, garages, and passenger facilities. FTA grants require a 20% match from the state, a requirement that MassDOT regularly fulfills. In some cases, MassDOT will allocate more than is required, and when it does, the match is usually at 50% of the FTA grant amount. Since FY2014, state capital assistance has increased every year, averaging at about \$29.36 million annually. RTAs do not carry capital debt except in rare and limited instances. Because the three

⁶ Massachusetts Department of Transportation (MassDOT), "[Transit Performance Tracker](#)," accessed March 4, 2019.

⁷ Data provided by the Massachusetts EOHHS/HST Office.

⁸ MassDOT 2018 Program Preview Data.

rural RTAs are not eligible to directly receive federal capital formula funds, MassDOT traditionally funds 100% of their capital budget.

MassDOT's FY19-23 Capital Improvement Program (CIP) includes \$188.8 million for the capital costs of public transportation services provided through the RTAs.

Recommendations for the Future of Service and Investment

These recommendations are broken down into five broad categories: **Investment & Performance, Accountability, Service Decisions, Quality of Service, and Environmental Sustainability**. In each category, we have compiled a set of recommendations or best practices, as well as several case studies to illustrate how some of the recommendations can be implemented.

The recently released report of the *Governor's Commission on the Future of Transportation* sets forth several well-structured recommendations that directly bear on the work of the Task Force:

1. "Prioritize investment in public transit as the foundation for a robust, reliable, clean, and efficient transportation system;"
9. "Establish a goal that beginning in 2040, all new cars, light duty trucks, and buses sold in Massachusetts will be electric or use another technology that meets the same emissions standards;"
14. "Use land use, economic development, and transportation policies and investment to enable Gateway Cities and the regions they anchor throughout the Commonwealth to compete for the growing number of residents and jobs;"
16. "Provide better mobility options in rural communities through reimagined public transportation, community transportation services, and public/private partnerships;"
17. "Prepare MassDOT and other transportation-related entities to effectively oversee a changing transportation system;" and
18. "Develop a fiscally sound and responsible transportation resource plan to operate, maintain, and upgrade the transportation system."

Individually and taken together, the above recommendations highlight the importance of a strong network of regional public transportation to better serve residents, to address climate change, to ensure access to jobs, to act in partnership, and to be managed in a way that is accountable and forward-looking. These recommendations informed the recommendations included in this report.

Investment & Performance

Recommendation 1: The legislature should fund the RTAs in fiscal year 2020 with a base of \$90.5 million⁹ in state contract assistance. Each subsequent year increase the state contract assistance by an automatic inflator¹⁰.

Building the public transportation system that Massachusetts needs and deserves starts with investment and performance. To innovate, expand and improve to meet demonstrated community needs, the RTAs need financial predictability and stability.

For years, RTAs across the Commonwealth have been facing budgetary challenges. They have struggled just to maintain a stable level of service. Several RTAs have been forced to cut service and raise fares, while very few have been able to increase service in a significant way. The RTAs can work towards greater efficiencies in service and spending, but greater efficiency alone is not a substitute for adequate funding.

Many of the recommendations below are designed to drive up ridership by increasing access, frequency, and convenience of RTA service. All these recommendations will require investment and the use of performance targets to demonstrate the value and relevance of transit. Without increased, predictable and stable funding, the RTAs will be unable to accomplish much of what is included in this report.

State contract assistance should rise year to year to keep up with inflation and regular cost increases, and funding will be tied to clearly articulated performance targets negotiated between each RTA and MassDOT.

Base funding for the RTAs should continue to come in the form of forward funded state contract assistance. Starting in fiscal year 2020, the base should be \$90.5 million¹¹. Moving forward, each year, that amount should continue to be increased by an automatic inflator¹² to allow the RTAs to keep up with inflation and rising costs. This annual increase should be codified so that RTAs can rely on their base level of funding.

This would provide a baseline stability and predictability of RTA funding so that both the RTAs and riders can expect the year-to-year continuation of existing service levels. Predictability of funding is important for the RTAs in their planning and budget processes, but it is just as important for riders. Some riders take jobs or decide where to live based on transit accessibility.

⁹ This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

¹⁰ This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

¹¹ This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

¹² This represents the consensus view of the RTA Task Force. It differs from the position of the Baker-Polito Administration as stated in the Administration's FY2020 Budget Proposal.

If they cannot rely on the fact that a bus route, or some form of transit service, will continue to be available they may not be able to take a job, or live in a certain area.

Recommendation 2: All state contract assistance will be connected to performance targets via a Memorandum of Understanding (MOU). MOUs will be bilaterally negotiated between MassDOT and each RTA and will identify performance targets in the following categories: ridership; customer service and satisfaction; asset management; and financial performance (incorporating a number of factors including farebox recovery ratio).

MassDOT and each RTA will individually negotiate a self-renewing MOU that will include performance targets that are most relevant to that RTA's unique system. Targets will be measured against agreed upon baselines. The MOU will also include appropriate timelines for implementation and reporting. The measurement process will not be punitive. If an RTA consistently does not meet targets, MassDOT and the RTA will develop a remedial plan to facilitate improvement. RTAs that are doing well should also be eligible for additional funding to help them pilot and expand successful services.

The performance targets will address the following categories: ridership; customer service and satisfaction; asset management; and financial performance. The financial performance category will incorporate a number of factors, including farebox recovery ratio. "Stretch" targets may be added that would not be subject to the same expectations as the baseline targets and would encourage RTAs to be entrepreneurial.

In the extraordinary case where an RTA and MassDOT are unable to come to agreement on the terms of an MOU, a dispute resolution process should be implemented, which for example could include one representative from the RTA in dispute, one representative from MassDOT, and one representative mutually agreed upon by both parties.

Recommendation 3: Provide communities with the tools they need to increase local contributions to RTA funding, including regional ballot initiatives.

The RTAs receive an average of 20 percent of their funding from local sources.¹³ Under Section 9 of Chapter 161B of the General Laws, annual local assessment payments are adjusted based on the "loss" (operating cost minus revenue) for each specific transit route and the activity and the share of that loss attributable to each town or city.

Increasing the amount of state investment does not necessarily mean that the percentage of funding from local sources must go down. While the state increases investments, so should the local communities. Local assessments may stay the same, but the RTAs, the legislature, and MassDOT should work with cities and towns to increase their local contributions to transit funding.

¹³ MassDOT 2018 Program Preview Data.

Right now, communities in Massachusetts are missing a tool used elsewhere in the country to allow them to increase their local share. It is common across the United States for local voters to decide whether to fund transportation projects. In Colorado, Kansas, Florida, Georgia, Michigan and many other states, cities or counties bring proposals directly to the public on the ballot.¹⁴ Transit, roads, bikeways and other transportation projects are often funded through locally-assessed taxes.¹⁵ Massachusetts communities currently do not have this valuable local funding tool.¹⁶

Specific regional ballot initiatives can be subject to differing points of views. However, some Task Force members consider them to have potential as an additional local revenue source for RTAs.¹⁷

Case Study: Grand Rapids, Michigan - The Rapid is a regional transit agency that serves six cities across the Grand Rapids region with 28 fixed bus routes and paratransit service.¹⁸ The Rapid receives a full third of its operating budget through voter-approved property taxes.¹⁹ Since 2000, Grand Rapids area residents have voted four times to approve The Rapid's local property tax funding, and in 2011, even voted to increase the tax rate in order to fund a new bus rapid transit line.²⁰

Recommendation 4: Establish a Human Services Transportation working group to explore ways to better collaborate, improve service and save money through the brokerage system.

The Human Service Transportation (HST) Office, within the Executive Office of Health and Human Services, promotes access to health and human services, employment and community life by managing a statewide transportation brokerage network for eligible consumers and by providing technical assistance and outreach strategies in support of local mobility and transportation coordination efforts especially for transportation disadvantaged Massachusetts residents.²¹ HST currently contracts with six RTAs to provide Non-Emergency Medical Transportation (NEMT) and other specialized transportation services.²² In FY2018, Massachusetts spent approximately \$238 million on 8.6 million trips delivered through the six RTA brokers.

¹⁴ Transportation for America, "[Regional ballot measures fund transportation projects](#)," April 6, 2018.

¹⁵ Transportation for America, "[Regional ballot measures fund transportation projects](#)," April 6, 2018.

¹⁶ Transportation for America, "[Regional ballot measures fund transportation projects](#)," April 6, 2018.

¹⁷ MassDOT does not opine on pending legislation and/or ballot initiatives.

¹⁸ The Rapid Public Transportation Authority, "[About the Rapid](#)," accessed January 3, 2019.

¹⁹ Transportation for America, "[Regional ballot measures fund transportation projects](#)," April 6, 2018.

²⁰ Transportation for America, "[Regional ballot measures fund transportation projects](#)," April 6, 2018.

²¹ Executive Office of Health and Human Services (EOHHS), "[Human Service Transportation Office](#)," accessed January 30, 2019.

²² Executive Office of Health and Human Services (EOHHS), "[Human Service Transportation Office](#)," accessed January 30, 2019.

A working group should be established with the goal of examining and better understanding the HST brokerage program and identifying opportunities for improved service and productivity that provides a strong “safety net” for vulnerable populations in both rural and urban areas. For example, are there rides that are being provided individually that could instead be provided on a regular RTA route? Instead of providing individuals rides for all riders, it may be more cost effective for RTAs to provide bus passes. RTA brokers of HST service need to also have strong, transparent, and consistent cost allocation systems in place to ensure that the capital and operating costs for both the brokerage and public transit systems are assigned to the appropriate cost center for reimbursement.

The working group should include MassDOT representatives, RTA representatives, representatives from the Human Service Transportation Office, and at least one rider representative.

Accountability

Recommendation 5: Maintain local control of day-to-day operations and management of the RTAs, while standardizing performance metrics for level and quality of service and increasing regional collaboration to present a statewide vision for public transportation in the Commonwealth. MassDOT should include the RTAs as partners in statewide planning and decision-making.

Each RTA is managed and operated through its own organizational processes, and this basic structure of governance should be maintained, where each RTA retains local control of day-to-day operations and management through their Advisory Boards. But there needs to be greater collaboration between the RTAs and MassDOT. To that end, moving forward, MassDOT should include the RTAs as partners in statewide planning and decision making.

In addition, because the RTAs receive so much of their funding from the state, they are already required to report annually to the state on a number of performance measurements.²³ The RTAs will continue to report the eight performance metrics listed below in bold, as well as two additional measures regarding the Transit Asset Management Plan Performance Reporting required by FTA, and on time performance (OTP). RTAs will continue to report quarterly to MassDOT on all required measures. While MassDOT understands that data is seasonally variable and not consistent throughout the year, and that operating expenses and revenue will not be validated by the annual audit until the fall after the fiscal year ends, MassDOT will work with the RTAs to allow data to be labeled “estimated” where necessary. MassDOT will also add a column to the reporting format to enable RTAs to list the previous year’s metrics so that year to year comparisons can be displayed.

- Ridership:
 - o Unlinked passenger trips.
- Customer Service and Satisfaction:
 - o Scheduled trips operated;
 - o Vehicle revenue hours;
 - o Vehicle revenue miles;
 - o On-time performance.
- Asset Management:
 - o Total Asset Management performance measures, as required by the Federal Transit Administration;
 - o Miles between road calls;
 - o Preventable accidents by 100,000 miles.
- Financial Performance:
 - o Operating expenses by:
 - Revenue hour;
 - Revenue mile;
 - Unlinked passenger;

²³ MassDOT, “[Transit Performance Tracker](#),” accessed March 4, 2019.

- Farebox recovery ratio (with the context discussed below in Recommendation 14 on “Fare Policy”).

Recommendation 6: There should be a reinvigorated RTA Council that fosters greater collaboration, promotes best practices, and provides a statewide vision for RTAs.

The RTAs and MassDOT will collaborate to reinvigorate the RTA Council quarterly meetings as provided by MGL Chapter 161B Section 27: “There shall be a Regional Transit Authority Council for the purposes of coordination and sharing information and best practices in matters of security and public safety planning and preparedness, service delivery, cost savings, and administrative efficiencies. Members of the Council shall include the administrator of each authority established under Section 14. The Secretary shall be Chairman of the Council and the General Manager of the Massachusetts Bay Transportation Authority shall be a nonvoting member of the Council. The Council shall meet no less than once each calendar quarter or upon the request, with reasonable notice, of the Secretary.”

The RTA Council will provide a forum to promote best practices in financial and operational management to strengthen a culture of continuous improvement and innovation among RTAs across the Commonwealth. The Council could also serve in a dispute resolution function and provide an opportunity for non-traditional stakeholders, such as businesses, universities, and health care providers, to advocate for their needs.

A reinvigorated RTA Council can be part of a new framework for accountability between the RTAs and MassDOT. This multi-layered framework allows the RTAs to maintain local control through their Advisory Boards while using MOUs to improve transparency and performance. In this new framework, the RTAs will further rely on the RTA Council for cross-cutting issues, the discussion of best practices, and a possible forum for dispute resolution and appeal/arbitration.

Service Decisions

Service decisions, as we are using the phrase here, relates to the amount of service provided both in frequency and hours of coverage—the latter sometimes referred to as the “span” of service. Within the category are several subcategories: Scheduling or span of service, service coverage, pedestrian environment, and cost.

Recommendation 7: RTAs will continue to succeed by understanding their markets and by aiming to have their service networks meet the current and future mobility needs of their region as well as support connectivity to other regions where possible. This effort will be guided by (1) the completion or updating of Comprehensive Regional Transit Plans (CRTP) every five years; (2) the evaluation of current service based on RTA service policies and standards, and (3) participation in local and regional planning processes.

The Commission on the Future of Transportation in the Commonwealth urges the prioritization of investment in public transit as the foundation for a robust, reliable, clean and efficient transportation system. Public transit systems can support economic development, job creation, and reduce pollution. Transit can also be key in meeting the GHG climate goals and is critical to get to work, school and go about daily life, particularly for those without access to a private automobile. RTA CRTPs should identify how the RTAs will advance these principles.

RTAs have completed CRTPs and submitted each plan to MassDOT. Prepared with community stakeholder public input, these plans identify community needs for service and restructuring, and ensure consistency with state and regional goals.

Based on the CRTPs, local participation and other data (including performance and demographic), RTAs will evaluate the sustainability and value of existing service and analyze the cost and benefits associated with delivering any new service. RTAs will assess the viability of any new service based upon the benefits and the availability of operational and financial resources. During the Program Preview process, RTAs and MassDOT will discuss the need for additional resources to meet the unmet need if available financial resources do not allow for current service or needed expansions.

RTAs will also use the CRTPs to work with local partners, including TMAs, municipalities, regional economic development organizations (REDOs), Chambers of Commerce, employment centers, Workforce Investment Boards, and major business, healthcare and educational institutions, to provide appropriate levels of transportation service to the working population and students.

To enable RTA periodic completion or updating of CRTPs, as well as participation in local planning processes (zoning and development reviews, and the development of bicycle and pedestrian plans) MassDOT will offer a local match for federal statewide planning funds

(Section 5303) used for transit. The RTAs will coordinate their planning activities with the RPAs as well as MassDOT and local municipalities.

Scheduling or “Span of Service”

Recommendation 8: RTAs should identify routes in their service areas where there is a demonstrated community need for seven day a week and evening and night service.

If transit service is not available when a potential rider needs it, transit use is not an option. We are increasingly living in a society where we need transportation options outside of the traditional nine-to-five commuter schedule. This is especially true for riders of public transportation, who are more likely to work in lower wage jobs, including in the bar and food service industry, that require working the second or third shift and working on weekends. It is also especially true for riders with continuing healthcare needs, for example, drug treatment. Many people in recovery from opioid addiction need reliable daily and weekly transportation to methadone clinics and support group meetings but may have suspended drivers licenses or are unable to afford cars.

Likewise, for public transit to be an option for recreation or errands, like going to an evening event, grocery shopping or a weekend activity, there needs to be convenient, affordable options available during those times.

Based on an evaluation of projected ridership, revenue and costs, every transit agency should determine whether seven day a week and evening and night service are needed for their communities. That does not mean that all buses and all routes need to run seven days a week and all night. Transit agencies should spend considerable time assessing the needs of the community and provide an adequate level of service where it is needed.²⁴ This should include an assessment of the needs of potential, or would-be riders, as well as current riders, and will require outreach to major employment centers, schools, hospitals and other venues.

RTAs routinely collaborate with RPAs and other stakeholders to develop their Regional Transportation Plans (RTPs). Required by Federal law, the RTP is a comprehensive 20-year plan that outlines the transportation needs and proposed services and projects for each region. RTPs also incorporate regional economic development and land use considerations. RTAs should use their RTPs, as well as their CRTPs, to identify community needs and guide service decisions.

²⁴ The 2014 Transportation Finance Law required each RTA to complete a comprehensive service analysis, which they have all completed. In large part, these needs have already been identified through that process.

Service Coverage

Recommendation 9: In high-density areas, 0.25 miles, or 5 minutes' walk time, is the limit of a fixed-bus route's typical "service area." In lower density areas and to supplement fixed route service, RTAs should seek to provide on-demand service, microtransit service, or partner with Transportation Management Associations (TMAs), municipal shuttles, Councils on Aging, Transportation Network Companies (TNCs), bikeshare companies and other mobility services to meet demonstrated community needs.

If transit service is located too far away from a potential rider, transit use is not an option. The outside limit of a bus route's typical service area is about 0.25 miles, or a five minutes' walk.²⁵ For train service, it is about double that.²⁶

As much as is practicable, the RTAs should plan their routes so that the majority of potential riders are serviced by a bus stop within a five-minute walk.

This level of service coverage is possible in urban areas, but is not practical everywhere. In more suburban or rural low-density areas, it is unlikely that a transit agency will be able to ensure that a large portion of the population lives within a five-minute walk of a bus stop. But the principle still applies, so in order to run successful transit service, where necessary, rural and suburban transit agencies need to find other ways to meet their riders where they are. That could mean moving away from fixed-route transit service and towards an on-demand or microtransit model.

MassDOT and relevant RTAs should develop a 2020-2040 strategy for public transportation in rural areas of the state, to include employment and education transportation, medical and other appointments, and (with Executive Office of Elderly Affairs (EOEA) and Massachusetts Councils On Aging (MCOA)) include transit services for the growing senior population to promote independent living.

MassDOT will convene and facilitate discussions in rural areas of the Commonwealth with rural transportation advocates, local RTA(s), regional planning commissions, Regional Coordinating Councils (RCCs), TNCs and HST providers about accessing HST resources by multiple transportation providers.

Partnering with the leadership of high traffic destinations, especially colleges and universities, can provide additional sources of revenue to facilitate broader service area coverage. Colleges across the country have paid local transit agencies to provide specially designed bus routes.

²⁵ Transportation Research Board Transit Cooperative Research Program, "[Transit Capacity and Quality of Service Manual](#)," April 12, 2017.

²⁶ Transportation Research Board Transit Cooperative Research Program, "[Transit Capacity and Quality of Service Manual](#)," April 12, 2017.

These routes connect campuses with malls, downtown areas, and grocery stores. Moreover, transit agencies may collect, by way of the participating universities, a blanket fee from students in order to grant students unlimited, fare-free access to public transit. Studies have shown that fare-free transit policies are especially beneficial to small to medium sized transit agencies for encouraging ridership among targeted groups.²⁷

The RTAs should act as Mobility Managers by partnering with TMAs, municipal shuttles, TNCs, and microtransit companies to provide responsive, customer-focused service in areas where they are not otherwise able to do so. These partnerships can also increase access to public transit service by providing first mile/last mile connections to transit hubs.

Case Study: AC Transit Flex - In 2016, the Alameda-Contra Costa Transit District (AC Transit), which provides bus service to 13 cities outside of San Francisco, launched an on-demand transit pilot called AC Transit Flex.²⁸ According to AC Transit Transportation Planner John Urgo, the pilot was “part of an effort to address declining ridership, improve service quality, and redesign our network in low-density, low-demand areas.”²⁹ In the first year of operation, 700 riders used the service, completing over 23,000 trips.³⁰ On-time performance improved, frequency of service was increased and 94 percent of riders surveyed preferred Flex over restoring the fixed route.³¹

Case Study: UMass Amherst and PVTa Partnership - UMass Transit is the second oldest fare-free transit service in the US, offering public transportation to students of UMass Amherst, the Five College System, and residents of the surrounding towns.³² An extension of the Pioneer Valley Transit Authority, UMass Transit is paid for by student fees and is free to students, faculty and staff to use throughout the year except during summer break. The system’s twelve specially designed bus routes connect the area’s five major campuses with key destinations. One of these routes, nicknamed the Shopper Shuttle, operates through the UMass Amherst campus, carrying students and residents through Amherst Center and the Campus Plaza Shopping Center.³³ Specially designed routes such as these are particularly important in rural areas which are un navigable to those without access to cars.³⁴

Case Study: Tacoma’s “Limited Access Connections” Program (in partnership with Lyft)
- In Tacoma, WA, Pierce Transit has partnered with Lyft to create the "Limited Access

²⁷ Perrone, Jennifer. [“Advantages and Disadvantages of Fare Free Public Transit”](#), *National Center for Transportation Research*, October 2002.

²⁸ Alameda-Contra Costa Transit District, [“AC Transit Flex”](#), accessed January 3, 2019.

²⁹ John Urgo, [“Flex V. Fixed: An Experiment in On-Demand Transit”](#), Transit Center, May 15, 2018.

³⁰ John Urgo, [“Flex V. Fixed: An Experiment in On-Demand Transit”](#), Transit Center, May 15, 2018.

³¹ John Urgo, [“Flex V. Fixed: An Experiment in On-Demand Transit”](#), Transit Center, May 15, 2018.

³² Perrone, Jennifer. [“Advantages and Disadvantages of Fare Free Public Transit”](#), *National Center for Transportation Research*, October 2002.

³³ UMass Amherst, [“Transportation Services: Routes and Schedules”](#), accessed January 3, 2019.

³⁴ UMass Amherst, [“Transportation Services: Routes and Schedules”](#), accessed January 3, 2019.

Connections" program.³⁵ The program provides free Lyft trips to or from four transit centers, and bus stops in the Tacoma area.³⁶ Only trips originating or terminating in specific geographic zones during designated times are eligible, with the times varying by zone.³⁷

Recommendation 10: RTAs should develop pilot programs that include innovative transit delivery models. By piloting different transit models, the RTAs will be able to determine what will improve transit delivery in their service area.

RTAs shall regularly communicate, collaborate, and exchange successful best practices, including but not limited to business relationships, initiatives, and models, partnerships, pilots, and all other successful endeavors so that their peer RTAs can adopt similar approaches within their service areas. In particular, MassDOT and the RTAs should collaborate to determine how best to continue and scale successful pilots and how such pilots and service delivery models will be funded.

On-demand or flex service should be considered as a replacement for a low-ridership or infrequent fixed routes as a means to reduce overall costs while continuing to provide service. New routes or pilot services could also begin as on-demand rather than fixed route if density or demographics do not provide a clear demand for regular service.

Recommendation 11: In communities that sit on the border of two RTAs, RTAs should work together to increase access to cross RTA services in order to better unify the Commonwealth's public transportation and increase access to more robust services.

The reality of the 21st century economy is that people do not necessarily live where they work, go to school or where their other activities are. Transportation is regional in its very nature. People who live in one RTA's service area often need to travel, sometimes on a daily basis, into another RTA's service area. Recognizing this, RTAs should explore ways to work collaboratively to provide more robust cross-RTA services in communities that border two RTAs. These cross-border arrangements should be supported by negotiated agreements that outline revenue sharing, and cost and service provisions. This will help ensure that more people are able to use RTA services and will help connect the Commonwealth's public transportation into a system that works together.

³⁵ Joseph Schwieterman, et al., "[Partners in Transit: A Review of Partnerships Between Transportation Network Companies and Public Agencies in the United States](#)," Chaddick Institute for Metropolitan Development at DePaul University, August 1, 2018.

³⁶ Joseph Schwieterman, et al., "[Partners in Transit: A Review of Partnerships Between Transportation Network Companies and Public Agencies in the United States](#)," Chaddick Institute for Metropolitan Development at DePaul University, August 1, 2018.

³⁷ Joseph Schwieterman, et al., "[Partners in Transit: A Review of Partnerships Between Transportation Network Companies and Public Agencies in the United States](#)," Chaddick Institute for Metropolitan Development at DePaul University, August 1, 2018.

Pedestrian Environment

Recommendation 12: RTAs should work with cities and towns to provide a safe, accessible, and comfortable walking environment around all bus stops, as well as safe, accessible, and comfortable bus stops.

Even if transit service is theoretically located within walking distance of a rider's origin and destination, the areas around the transit stops must provide a comfortable walking environment in order for transit to be available. Lack of sidewalks, poorly maintained sidewalks and lack of street lighting all discourage pedestrian travel. Wide or busy streets without signalized crosswalks at regular intervals, or without pedestrian refuges in the median, also discourage pedestrian travel.

The bus stops themselves should also be comfortable and safe for riders while they wait. Benches should be available for riders who cannot stand for long periods of time, and where possible, shelters should be erected to protect riders from wind and rain. Quality passenger amenities at bus stops improve accessibility to transit for community residents and visitors, which in turn improves access to work, school and medical appointments as well as retaining connections to family.³⁸ These seemingly small improvements should not be overlooked.

Case Study: Twin Cities MetroTransit “Better Bus Stops” Project - MetroTransit, which serves Minneapolis and St. Paul, launched their “Better Bus Stops” project with the goal of providing customers a safe, secure and comfortable experience at the bus stop.³⁹ They have developed a bus stop evaluation process, as well as guidelines for bus shelter placements, and over the past few years have vastly improved the quality of bus stops on their routes. As of 2018, 60 percent of bus boardings occurred at stops with shelters.⁴⁰

Paratransit Services

Paratransit service is one of the most essential functions of the RTAs. For many with physical disabilities, especially those of lower incomes, public transportation is the only viable option to get around. All the RTAs in Massachusetts offer some level of paratransit service, usually taking the form of on-demand, dial-a-ride service in compliance with ADA requirements. Many of the problems related to level of service in the RTA service areas also affect the quality of paratransit service across the state. While there are unique considerations for paratransit services, the standard of service should be the same as that of fixed route service.

³⁸ Mary Buchanan and Kirk Hovenkotter, “[From Sorry to Superb Everything You Need to Know about Great Bus Stops](#),” *Transit Center*, October 2018.

³⁹ Metro Transit, “[Better Bus Stops](#),” accessed January 3, 2019.

⁴⁰ Mary Buchanan and Kirk Hovenkotter, “[From Sorry to Superb Everything You Need to Know about Great Bus Stops](#),” *Transit Center*, October 2018.

Recommendation 13: RTAs should provide reliable paratransit service in compliance with the Americans with Disabilities Act (ADA) requirements and consider the feasibility of offering additional services beyond ADA that meets the needs of their communities. RTAs should also implement an easy-to-use scheduling system using technology that improves the customer experience.

Typically, paratransit services are only available during the hours of fixed route bus service. When service is cut, paratransit riders are perhaps the most affected. Disabled riders who sometimes have limited mobility choices. For that reason, some RTAs have offered demand response services beyond ADA requirements to persons with disabilities and others (particularly the elderly).

Some transit systems have also partnered with TNCs and microtransit companies to provide paratransit options. These partnerships can attract more customers with limited RTA financial support and can offer more precise schedules.

RTAs can also improve the paratransit rider's customer experience by implementing modern and easy-to-use scheduling systems where available and feasible to improve the customer experience.

Fare Policy

Recommendation 14: MassDOT and the RTAs should carefully utilize farebox recovery ratio as a performance metric, considering the ratio in context with other factors and balancing the need to maintain the affordability of service.

Even if transit service is available when a rider needs it, is located within walking distance of a rider's origin and destination, and the area around the transit stops provide a comfortable walking environment, it needs to be affordable for the rider.

While farebox recovery ratio, or the fraction of operating expenses which are met by the fares paid by passengers, is a performance metric that the RTAs must report and consistently evaluate in the overall mix of revenue generation, the standard should be set carefully. It should avoid creating a perverse incentive not to provide robust service in areas populated by seniors, for example, who by law pay no more than half-priced fares. This is especially important, as the Governor's Task Force on Aging identified transportation as one of the key challenges for seniors.⁴¹ It should also avoid disincentivizing fare policies that increase access, like providing discounted fares to low-income riders, or students.

Any farebox recovery ratio standard should be considered within the context of these factors.

⁴¹ Governor's Council to Address Aging in Massachusetts, "[Aging in Massachusetts: Shaping the Future](#)," Dec. 10, 2018.

Another potentially useful metric may be to measure an RTA's total own-source revenue recovery—a measure that would include revenue generated from parking, advertising, special grants and other sources. Alternative metrics that don't penalize agencies for the use of discounted fares (such as those required for seniors or persons with disabilities, as well as those commonly provided to students) should be considered as well.

A related effort to maximize revenue for RTAs is Bill HD.1993, "An Act Establishing a Federal Transit Funding Maximization Fund," sponsored in the 2019 session by Representative Peake and Transportation Chairman Straus.⁴²

Beginning in 2016, CCRTA entered into a partnership with the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority (SSA), such that SSA voluntarily submits service data to NTD. As a result of SSA's submissions, an additional \$3.2 million in FTA formula funds were allocated to the Barnstable urbanized area in FY2018, a portion of which was provided to the SSA for eligible public transportation purposes. It is currently not possible to directly provide Federal funding to potential private ferry or intercity bus providers under Federal grant regulations. With implementation of the legislation, private carriers would be compensated with state funds of up to 25% of the additional formula funding their submission to NTD brings into the Commonwealth, and the state would be able to offset a commensurate amount of state funding provided to transit because of the substitution of a like amount of new federal funding available to support eligible public transit purposes.

Private transportation providers include intercity bus carriers, ferries, shuttle services, van pools, and other similar types of transportation services that are available to the public and operate within the service areas of all 15 RTAs.

Recommendation 15: Every three years, each RTA should conduct a fare equity and market analysis and present the findings to their Advisory Boards and MassDOT. This process should inform any fare increases or changes in fare policy.

Modest, incremental fare increases are often necessary and good practice for transit agencies. RTAs consider fare change as a reaction to various forces, financial or otherwise. While fares should not be raised solely as a matter of course, review of fares and fare policy should be considered a normal part of planning, and small, regular fare increases can help prevent the disruption to customers that larger fare increases might cause.

Every three years, each RTA should conduct a fare equity and market analysis. This will require the RTAs to consider changing fares as part of the solution to providing service, but will also help them understand the impacts of changing fares.

⁴² MassDOT does not opine on pending legislation.

Passengers' capacity to pay needs to be an important factor in setting the fare. Everyone is hurt when a passenger stops riding public transit. If they are making that trip in a car, it is adding to the greenhouse gases that mode shift to transit can alleviate.

There may be reasons to raise fares, but there also may be reasons not to raise fares—like incentivizing greater use. The fare equity and market analyses will help each RTA determine what makes the most sense, and what is most efficient, for them.

Each RTA should be required to present the findings of the fare equity and market analysis to their Advisory Boards and MassDOT. These results will help the Advisory Boards set appropriate fares and implement appropriate fare policy based on the analyses.

Recommendation 16: RTAs should modernize and standardize fare collection by partnering with the MBTA and adopting the new AFC 2.0 system on a statewide basis, while still maintaining an accessible system for cash customers as appropriate.

Efficient fare collection mechanisms can help speed up bus service and avoid delays. On highly used routes, off-board fare collection can significantly reduce the time a bus spends at each stop. Paying fares in advance using turnstiles slashes boarding time and eliminates the aggravation and anxiety of grappling with payment methods.⁴³

MassDOT and the RTAs should cooperate to incorporate technological advances into transit service. Microtransit, Automated Passenger Counters (APCs), Automated Fare Collection (AFC), and Automatic Vehicle Locator (AVL) technologies require resources not only for planning, design, purchasing, and implementation but also for annual maintenance. In addition, technologies evolve extremely fast requiring constant updating of systems. Incorporation of technology systems into RTA transportation will increase customer service, attractiveness of public transit service and ease of use, and provide valuable information for data driven decision-making.

A standardized fare collection system throughout the RTAs can increase regional use of public transportation by allowing residents to use the same fare card or system to ride on multiple transit agencies. The MBTA is currently developing a new fare collection system that is designed to make paying for transit easier and more convenient.⁴⁴ With Automated Fare Collection 2.0, or AFC 2.0, riders will be able to tap and board at any door with a fare card, smartphone, or contactless credit card.⁴⁵ Riders will be able to reload using cash or credit card at vending machines at all stations and some bus stops, or go online to manage one's account 24 hours a day.⁴⁶ The RTAs should partner with the MBTA to adopt the new fare collection system that comes out of AFC 2.0. By doing so, the RTAs can ensure that a simple, standardized and modern system is available throughout the Commonwealth.

⁴³ Boston BRT, "[The Gold Standard](#)," accessed January 3, 2019.

⁴⁴ Massachusetts Bay Transportation Authority, "[Automated Fare Collection 2.0](#)," accessed January 3, 2019.

⁴⁵ Massachusetts Bay Transportation Authority, "[Automated Fare Collection 2.0](#)," accessed January 3, 2019.

⁴⁶ Massachusetts Bay Transportation Authority, "[Automated Fare Collection 2.0](#)," accessed January 3, 2019.

Because some RTAs serve economically challenged populations, they may also decide to maintain a system for on-board cash payment for riders who have no other option.

The MEPA Process

Recommendation 17: RTAs will perform regular analysis, community outreach, and actively participate in the Massachusetts Environmental Policy Act (MEPA) process to: (a) understand employment patterns, (b) identify opportunities to establish partnerships, and (c) explore potential service adjustments and potential new service to meet demand.

The RTAs and MassDOT's Office of Transportation Planning (OTP) will collaborate on a process that will not only bring RTA suggestions into the MEPA process, but also improve the likelihood that those suggestions will be incorporated into the Commonwealth Section 61 findings that establish the basis for any access permit that MassDOT may be asked for at the conclusion of the MEPA process.

OTP will contact the RTA when a relevant project is entering MEPA or undergoing MEPA review. OTP will solicit from the RTA information on commitments that it would ask the project proponent to make to facilitate transit usage. This could be funding for a pilot service, a bus shelter, a pedestrian crosswalk, subsidizing transit passes, marketing transit services to tenants, or other Transportation Demand Management (TDM) initiatives, including first mile/last mile programs. OTP will include that material in MassDOT's comment letter to MEPA and ask that the contents be reflected in the final certificate that concludes the MEPA process.

Projects that do not trigger a MEPA review are subject to the municipal development plan approval process, which may not require coordination with the RTA. The inconsistent early coordination can delay transit service to the site, provide inadequate transit amenities, or present an unsafe condition for passengers. These issues can be avoided if the development process includes a provision to notify the RTA of the intent to develop a site that may affect demand for public transit service.

Finally, the RTAs and MassDOT in coordination with the RPAs should explore options to develop guidelines for municipalities so that notice is given to the RTA regarding proposed development projects that may affect demand for transit service. RTAs are strongly encouraged to participate in the review of projects that they are notified of.

Quality of Service

Quality of service is twice as important to the average public transit rider as fare cost.⁴⁷ Providing riders with an easy, stress-free commute should be a top priority of RTAs, no less important than service area coverage or frequency. When passengers experience frequent discomfort, they are less likely to use public transit for their daily commutes, or are more likely to miss work, classes or doctor appointments. Some RTA riders have the fallback option of driving, but many do not. Often, improvements in level and quality of service go hand-in-hand.

Passenger Comfort

Recommendation 18: RTAs should determine which routes are prone to bus crowding and address the issues that cause bus crowding.

RTA's should consider three main metrics to ascertain the general comfort level of their average bus rider: Number of seats per bus, bus ridership per route, and delay hours per passenger. Bus crowding is perhaps one of the most obvious causes of passenger discomfort. When there are more people on a bus than there are seats, some passengers will have to stand. The more people on the bus, the less room there is to stand. The MBTA, for example, determines a bus to be "crowded" when it is at 140% of its seating capacity.⁴⁸ The average MBTA bus has 39 seats, so a bus with 55 or more passengers is considered "crowded."⁴⁹ The MBTA also uses a metric called "minutes of crowded passenger" to determine how long a bus on a certain route remains crowded.⁵⁰ Being on a bus that is crowded for one stop is very different than being on one that remains crowded throughout its route. The number of seats on a bus is relatively fixed, but there are still measures that can be taken to improve overall rider experience.

Looking at the frequency of delays on individual routes and working to minimize those delays is an essential first step. A single delay can have reverberating effects on service quality across an entire transit network. The fewer buses servicing a route, the more passengers must crowd onto buses. Minimizing delays is an ongoing goal of all transit agencies, large and small, and is one of the many areas which concerns issues related to both quality of service and level of service.

Often, it is not only riders that crowd a bus, it is also the things they bring with them. A bus route that runs through a college campus or shopping center should expect to have lots of riders with heavy backpacks and grocery bags. Many agencies will ask that backpacks be removed and placed on the floor as a courtesy, or actually enforce this practice a policy.⁵¹ However, as more people turn to public transit for their daily errands, agencies should consider making room for passengers' personal belongings. Newer bus models are being designed with passenger

⁴⁷ Perk et al. [Transit Ridership, Reliability, and Retention](#), October, 2008.

⁴⁸ Massachusetts Bay Transit Authority (MBTA) Office of Performance Management & Innovation. [Service Improvement Toolbox: Bus Crowding](#), March 27, 2017.

⁴⁹ MBTA. "[Bus Crowding: Introduction](#)", *Data Blog*, November 4, 2016.

⁵⁰ MBTA. "[Bus Crowding: Introduction](#)", *Data Blog*, November 4, 2016.

⁵¹ The Bus, City and County of Honolulu. "[Rules, Regulations, and Rider Tips](#)".

belongings in mind, with designs that feature inward facing seats, more aisle space, and elevated seats to allow for more under seat storage.

Other components of buses also affect passenger experience. Older diesel buses with dated suspension systems, engines, and emissions standards can saddle passengers with bumpy, noisy rides and poor onboard air quality.⁵² The Federal Transit Administration reports that around 20% of transit buses operating in the US are at least one year past the standard retirement age.⁵³ In addition to improving passenger comfort, monitoring the age and fuel type of an agency's fleet is an essential component to any agency's sustainability plan.

Case Study, King County Metro: In 2018, King County Metro, the public transit agency that serves King County, Washington, which includes Seattle, was named the best transit agency in the country by the American Public Transportation Association (APTA).⁵⁴ To meet growing demands of its booming ridership Kings County has taken proactive steps to improve safety, efficiency, and maintenance with improved passenger experience at the forefront of their mission.⁵⁵

In 2016, the agency reported that 13 of its bus routes were “chronically crowded.”⁵⁶ After determining where the most need was, the agency prioritized improvement to those routes. These improvements included adding service hours, advocating with city planners for more dedicated bus lanes, and investment in a new fleet.⁵⁷ The ameliorated route efficiency helped mitigate bus crowding, and the agency had announced plans to minimize delays, with a year-end goal of 80% of buses running on-time.⁵⁸

Ease of Access

Like passenger comfort, transit accessibility represents an intersection between quality of service and level of service. Greater service coverage and trip frequency will make transportation more readily available and accessible. There are unique logistical challenges agencies must consider when working to increase citizen access to public transportation. RTAs must design routes that connect riders with intermodal links, including to other regional transit authorities. Recognizing the importance of commuter rail connections in Gateway Cities, the RTAs should prioritize connecting neighborhoods and commuter rail stations. They must also work with RPAs to support transit-oriented development in RTA service areas.

⁵² Laver et al., “[Useful Life of Transit Buses and Vans](#)”, *Federal Transportation Administration*, April 2007.

⁵³ Laver et al., “[Useful Life of Transit Buses and Vans](#)”, *Federal Transportation Administration*, April 2007.

⁵⁴ Constantine, Dow, “[King County Metro named best large transit system in North America](#)” (press release), August 6, 2018.

⁵⁵ Constantine, Dow, “[King County Metro named best large transit system in North America](#)” (press release), August 6, 2018.

⁵⁶ King County Metro, “[2016 System Evaluation](#),” September 2016.

⁵⁷ King County Metro, “[2018 System Evaluation](#),” September 2018.

⁵⁸ Ringman, Steve, “[Your metro bus is on time more often than you may realize](#)”, *The Seattle Times*, February 12, 2018.

Recommendation 19: RTAs should ensure fixed routes, and on demand services where appropriate, maximize multimodal connectivity. To this same end, new infrastructure which addresses first-last mile problems, especially sidewalks, bike lanes, racks, bikeshares and/or lockers, should be prioritized. RTA should work in-tandem with their planning partners to participate in transit-oriented development and engage with new developments to provide transportation solutions to new developments and housing as it comes online.

Optimizing multimodal connectivity can help decrease traffic congestion, improve rider experience, and offer solution to the first-last mile problem.⁵⁹ Multimodality dramatically improves a transit system's sustainability and efficiency, while cutting travel times for commuters. Even simple steps to increase a system's multimodality will make current riders' daily commute simpler and more convenient, as well as attract new riders.

Many multimodal improvements could help commuters bypass single-person automobiles all together. In areas like central Massachusetts and Cape Cod with extensive bike path networks, public transit agencies should develop routes that connect trail hubs and terminuses.⁶⁰ All buses should be equipped with bike racks to further encourage multimodal travel among cyclists. New focus should also be given to towns that lie on the border of RTA service areas.

RTAs in Gateway Cities and other areas served by the MBTA Commuter Rail should pay particular attention to connecting neighborhoods with those stations in order to solve first-mile/last-mile challenges.

Public transportation will best serve communities whose development patterns actively encourage transit use. Everything from traffic flow, to the location of housing, shopping, and schools will affect the accessibility of public transit to the population. Transit agencies across the country have long struggled to coordinate community development with their transportation network. Massachusetts Transit Orientated Development (TOD) policies offer programs that provide credit or grant funding to projects designed to integrate new development with local transportation options. A chief concern of many of these programs is ensuring new housing developments near public transportation remain affordable, as lower income people are often most reliant on mass transit. RTAs should work with their MPOs to take advantage of state programs as new development projects emerge. RTAs and MPOs can also take an active role in offering developers incentives to create transit accessible housing and commercial space.

RTAs should also work with the cities and towns within their service area to anticipate new service needs based on new development. Cities and towns should alert RTAs to new development and open discussions on how to implement transit services to meet new potential demand.

⁵⁹ The first/last mile problem refers to the difficulty of getting people from transportation hubs (i.e. bus stops or rail stations) to their final destination.

⁶⁰ A map of the Massachusetts bike trail network can be found [here](#).

Case Study: Safe Routes to Transit Program: In 2014, the San Francisco Metropolitan Transportation Commission, the Bay Area Metropolitan Planning Organization, developed a \$20 million dollar targeted investment program to facilitate safer walking and bicycling to and around public transit.⁶¹ The program was funded with highway toll revenue.⁶² The MTC then worked directly with San Francisco County Transportation Authority (SFCTA) to design and construct bike lockers, dedicated bike and pedestrian areas near transit hubs, and signage to direct cyclists towards protected lanes and trails.⁶³ By expediting these intermodal projects, SFCTA reduced the need for new parking facilities in high traffic areas.⁶⁴

Case Study, TOD along the Wasatch Front: The Wasatch Front is a chain of contiguous cities in North-Central Utah. Home to the state's capital, Salt Lake City, around 80% of Utah's population lives in this region.⁶⁵ The area's public transit is provided by the Utah Transit Authority (UTA) which operates both light and heavy rail trains as well as bus routes throughout the region. The area has steadily grown throughout the past decade, seeing 25% population growth since 2000.⁶⁶ This population growth helped bring new public transportation infrastructure including subway stops, bus stations, and intermodal links.⁶⁷

UTA owned a significant portion of land that was not using for transit purposes. UTA leadership worked with state legislatures to create a bill that allowed public transit agencies to partner directly with land developers to create TOD projects in population centers. UTA could contribute their undeveloped land as part of their monetary contribution to the project, giving the agency control over where development occurred, and what transit related infrastructure was created to properly service it.⁶⁸

This arrangement is unique to UTA, but as a case study it reveals the importance of coordinating with community leaders and state lawmakers to determine TOD projects that will actually serve the needs of a community.

Rider Relations

An RTA could in theory provide exceptional, on time service across a wide, varied area and still be plagued with low-ridership if the RTA is unable to effectively communicate with the public. Modern transit agencies have a wide range of tools to help the public navigate their system.

⁶¹ San Francisco Transportation Authority, "[Safe Route to Transit Cycle 4](#)," 2011.

⁶² Shinkle, Douglas, "[Transit-Oriented Development in the States](#)", *National Conference of State Legislatures*, December 2011.

⁶³ San Francisco Transportation Authority, "[Safe Route to Transit Cycle 4](#)," 2011.

⁶⁴ San Francisco Transportation Authority, "[Safe Route to Transit Cycle 4](#)," 2011.

⁶⁵ Shinkle, Douglas, "[Transit-Oriented Development in the States](#)", *National Conference of State Legislatures*, December 2011.

⁶⁶ United States Census Bureau, [American Fact Finder](#), US Census Data 2000-2010.

⁶⁷ Calthorpe Associates et al., "[Wasatch Front Transit Oriented Development Guidelines \(Presentation\)](#)", *Envision Utah*, 2002.

⁶⁸ Shinkle, Douglas, "[Transit-Oriented Development in the States](#)", *National Conference of State Legislatures*, December 2011.

Opt-in text alerts, social media and other web-based platforms can provide the public with up-to-date information regarding services, fares, planned projects, and real-time updates. RTAs should also share real-time data so that it can be used by apps and outside services that provide real-time information to users.

These tools can also be a platform for great rider engagement. There are also methods by which to formally include the voices of riders in decision-making including rider-representation on administrative boards, public comment periods during project review, and direct engagement with interest groups.

Recommendation 20: All RTAs should have an easily accessible website and a robust social media presence to allow for direct communication with their riders or potential riders.

An easy-to-use, user-friendly, regularly updated website is a baseline essential for any modern transit agency, regardless of size. From the largest cities, to the most rural communities, Americans get a majority of their news and information from online sources and RTAs must meet the public where they are.⁶⁹ Websites should also have information in languages other than English based on community demographics.

An RTA website should be a simple-to-use tool for commuters who may not be familiar with the transit network. To meet this standard, all RTA websites should have up-to-date schedules, route maps, and a trip planner that aligns with other RTAs and the MBTA. Additional online features could include real time vehicle tracking and online fare collection through a mobile app.

All the Massachusetts RTA websites have current schedules posted that are accessible in under five keystrokes.⁷⁰ All but two have route maps, with varying levels of interactivity.⁷¹ However, only five have a trip planner built into their website.⁷² Pioneer Valley Transit Authority is the only RTA in Massachusetts to offer a mobile app.

Case Study, Santa Barbara: Santa Barbara is a medium-size coastal city in California. With a population of around 90,000, the city is served by the Santa Barbara Metropolitan Transit District.⁷³ The city is a year-round tourist destination and the agency's website is designed to help anyone navigate the system, local and visitor alike. The homepage of the website has an intuitive trip planner.⁷⁴ The user puts in their current location and intended destination, and the

⁷⁰ For example, the [Worcester Regional Transit Authority website](#) has a sidebar of "quick links" which includes a link to a complete list of routes. Clicking on individual routes opens a new page which lists the routes current schedule and provides a link to a route map.

⁷¹ For example, the maps on the WRTA website and PDF files which are not interactive. The Franklin Regional Transit Authority website also offers PDF maps, but also provides a link to Google Maps with specific routes highlighted. This allows riders to plan their trip while staying on the website.

⁷² The Daily Collegian, "[PVRTA mobile app now available on Android](#)," October 9, 2012

⁷³ United States Census Bureau, [American Fact Finder](#), US Census Data Estimates.

⁷⁴ See the [website](#).

website provides a step by step transit plan for the user. Just below the trip planner is a live bus tracker application and a real-time schedule that includes delays and other service updates. The website is clear, concise, and provides riders with useful, updated information.

Recommendation 21: MassDOT should collaborate with the RTAs and the MBTA to adopt consistent use of statewide tables, maps and abbreviations and work towards greater integration between RTA and MBTA information services where appropriate.

On websites and in all written or printed materials, MassDOT should work with the RTAs and the MBTA to adopt consistent use of statewide tables, maps and abbreviations to make all transit agencies across the state as simple to use and accessible as possible.

The ultimate goal could be a single transportation website and app for the entire state, where riders can find information about the entire public transportation system, including the MBTA, the Commuter Rail and the RTAs.

Additionally, access to General Transit Feed Specifications (GTFS) technology as used in the MassDOT RTA Task Force presentation would assist the RTAs and RPAs in mapping current routes but also to identify where transit service could be added and restructured. GTFS data is an industry standard format used by many transit agencies, including the MBTA.

Recommendation 22: RTAs should formally include the public in decision-making on matters related to new projects, fare changes, and service planning. In doing so, RTAs should strive to include potential or would-be riders as well as current riders through intentional outreach to large employers, schools and other venues.

Decisions involving new construction projects, service changes, and/or broader updates in overall mission should invite public comment and allow for a 60-day comment period before any decision is made final.

Case Study, Grand Rapids: In 2010, the city government of Grand Rapids announced a citywide environmental sustainability plan.⁷⁵ Noting the outsized contribution of transportation to overall greenhouse gas emissions, the city worked closely with the regional transit authority to implement key elements of the plan.⁷⁶

A major component of the RTA's plan was a traffic management study. The study tested a variety of congestion mitigation measures along Michigan Street. Every day, 10,000 workers and 41,000 college students descend on Michigan Street, leading to heavy gridlock.⁷⁷ The RTA

⁷⁵ Experience Grand Rapids, "[Green Grand Rapids](#)," January 31, 2019.

⁷⁶ Occhipinti, Nicolas and Aaron Ferguson, "[Grand Rapids Climate Resiliency Report](#)", *West Michigan Environmental Action Council*, 2013.

⁷⁷ Quick et al (2011). "Suggested Design and Management Techniques for Enhancing Public Engagement in Transportation Policymaking", *University of Minnesota Center for Transportation Studies*.

wanted to implement more bus rapid transit on Michigan Street to help lower the number of cars in the corridor.⁷⁸ Any policy regarding Michigan Street would affect tens of thousands of people every day, from college students to nurses and doctors at the street's two medical complexes.⁷⁹

Through a combination of public meetings and focus group sessions with stakeholders, the RTA learned where the need for bus rapid transit was greatest. They also learned how to design routes that would not interfere with ambulances going to and from hospitals and at the same time connect to student shuttles and bike paths. Community leaders in Grand Rapids have noted that the process did not merely consult with riders but made riders the decision-makers.⁸⁰

⁷⁸ Quick et al (2011). "Suggested Design and Management Techniques for Enhancing Public Engagement in Transportation Policymaking", *University of Minnesota Center for Transportation Studies*.

⁷⁹ Occhipinti, Nicolas and Aaron Ferguson, "[Grand Rapids Climate Resiliency Report](#)", *West Michigan Environmental Action Council*, 2013.

⁸⁰ Quick et al (2011). "Suggested Design and Management Techniques for Enhancing Public Engagement in Transportation Policymaking", *University of Minnesota Center for Transportation Studies*.

Environmental Sustainability

The transportation sector is the largest contributor to carbon emissions in the Commonwealth.⁸¹ In December 2018, Massachusetts along with eight other states and Washington, DC, entered into an agreement to reduce transportation related emissions by 2040.⁸² That same month, the Commission on the Future of Transportation in the Commonwealth released a series of recommendations for improving mobility across Massachusetts. The top concern of the commission was increased public transit ridership as part of a broader effort to reduce greenhouse gas emissions and combat climate change.⁸³ RTAs must recognize their role in meeting the state's environmental goals.

The RTAs will require additional investment, both in operations and capital funds, to achieve these goals. Future money from a regional or statewide carbon pricing or transportation cap-and-invest program, like is being developed through the Transportation and Climate Initiative process, should support RTA service and environmental sustainability measures. While it seems premature to consider how the cap-and-invest proceeds would be allocated since they do not yet exist, it is important to start thinking about how this approach could benefit the RTAs.

Decreasing Statewide Emissions

Recommendation 23: In order to reduce greenhouse gas emissions from the transportation sector by at least 40 percent by 2040, the RTAs and MassDOT should determine the mode shift that will be required to meet that goal, as well as work with local partners to create a long term environmental sustainability plan. .

From fiscal years 2017 to 2018, overall ridership of RTAs in Massachusetts decreased an average of 2.7 percent. Worcester Regional Transit Authority experienced the sharpest fall in ridership, losing 13 percent of its ridership.⁸⁴ Falling ridership has wide-reaching consequences which affect every aspect of an RTA's day-to-day operation. Many of these consequences have been covered in this report. There are also extensive environmental impacts. When RTA ridership falls and public transit is no longer an option for residents, they will turn to single person automobiles or carpooling for their daily travel, leading to an increase in overall greenhouse gas emissions.⁸⁵

⁸¹ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

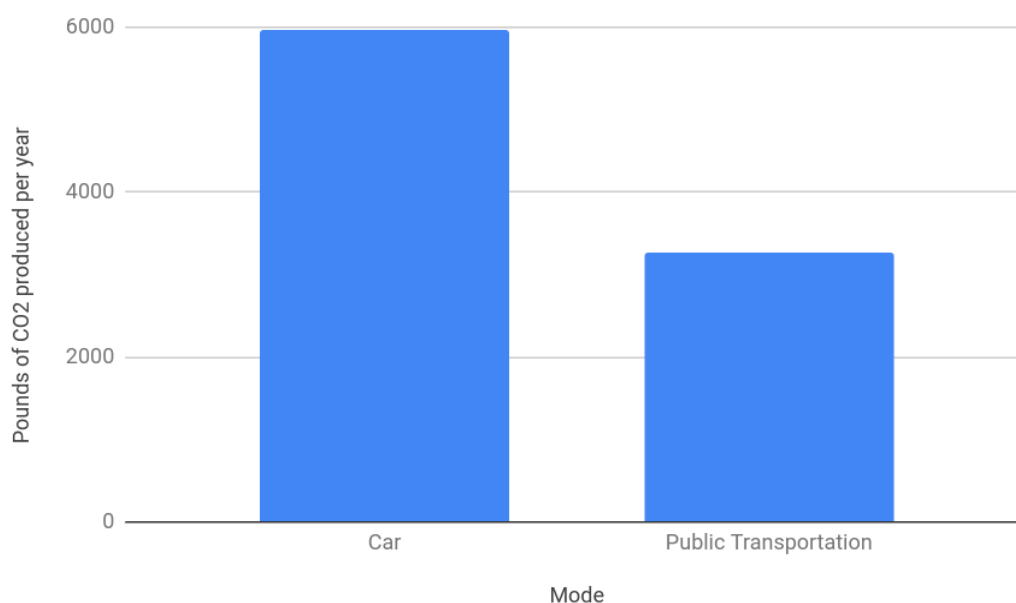
⁸² Transportation and Climate Initiative of the Northeast and Mid-Atlantic States, [“Nine States and D.C. to Design Regional Approach to Cap Greenhouse Gas Pollution from Transportation”](#), December 12, 2018.

⁸³ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Recommendations to Meet the Transportation Future](#), December 2018.

⁸⁴ Moulton, Cyrus, [“WRTA Ridership Decline is Worst in the US”](#), *Telegram and Gazette*, June 28, 2018.

⁸⁵ Siddiqui, Faiz, [“Falling transit ridership poses an ‘emergency’ for cities, experts fear”](#), *Washington Post*, March 24, 2018.

Figure 2: Annual CO2 emissions by transportation mode



The average Massachusetts resident travels 26.8 miles every day.⁸⁶ If that resident is traveling by car, they produce an average of 16.37 pounds of CO₂ emissions every day.⁸⁷ If that same commuter were to use public transportation for their daily commute, their transportation-related CO₂ emissions would be cut nearly in half.⁸⁸ A single passenger switching from a gasoline automobile to public transit for their daily travel can avoid 1.22 metric tons of CO₂ each year.

Unfortunately, many Massachusetts residents cannot rely on public transportation for their day-to-day travel. Providing RTAs with the necessary funding to expand coverage and improve quality of service will directly help lower our state's overall greenhouse gas emissions.

The RTAs and MassDOT should work together to determine the mode shift required of each system to help reach the Commonwealth's goal of reducing transportation related emissions by 40 percent over the next 20 years, which will help the Commonwealth meet the emissions reduction goals of the Global Warming Solutions Act. Similarly, the RTAs should work with their local planning partners, such as their local communities and RPAs, to create a long term environmental sustainability plan for transportation in their region.

⁸⁶ MassDOT Office of Performance Management and Innovation, "[Tracker 2017](#)", November 2017.

⁸⁷ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

⁸⁸ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

Fleet Electrification

Recommendation 24: In keeping with the state’s environmental goals related to transportation, all public transit bus purchases should be zero-emissions by 2035.

The RTAs have done a good job at keeping their fleets and facilities in a State of Good Repair (SGR). As they plan to replace vehicles, RTAs need to increase the share of low-emission electric vehicles in their fleet. This is critical to helping the Commonwealth meet the Global Warming Solutions Act (GWSA) 2050 mandate. As they plan new facilities, RTAs will incorporate sustainable materials and practices in the design and construction of these structures.

RTAs will take advantage of joint procurement opportunities, particularly for vehicle purchases, to achieve cost savings. As they continue to procure no emission buses, joint procurement actions will not only be cost effective but will also provide RTAs with similar buses and enable them to establish joint maintenance training opportunities for their workforces.

Getting more people out of cars and on to public transit is a critical first step in achieving the state's environmental goals, but it is not a sufficient plan to address our environmental challenges. In order to meet the goals laid out the Massachusetts Global Warming Solutions Act of 2008, the state must also move towards complete vehicle electrification.⁸⁹ Public transit agencies should be leading the state towards this goal by phasing out diesel and other emitting fuels and committing to fully electric bus fleets by 2035.

Electric vehicles, including buses, produce no tailpipe emissions and have the potential to radically reduce statewide greenhouse gas emissions.⁹⁰ Since 1990, emission levels from the Massachusetts electrical grid have steadily decreased while transportation-related emissions have remained the same.⁹¹ Even when emissions created from charging electric vehicles is factored in, they are still three times less polluting than conventional gasoline or diesel engines.⁹² Replacing all diesel buses currently operated by RTAs with electric models would be the equivalent to taking 3100 cars off the road annually in terms of emissions reductions.

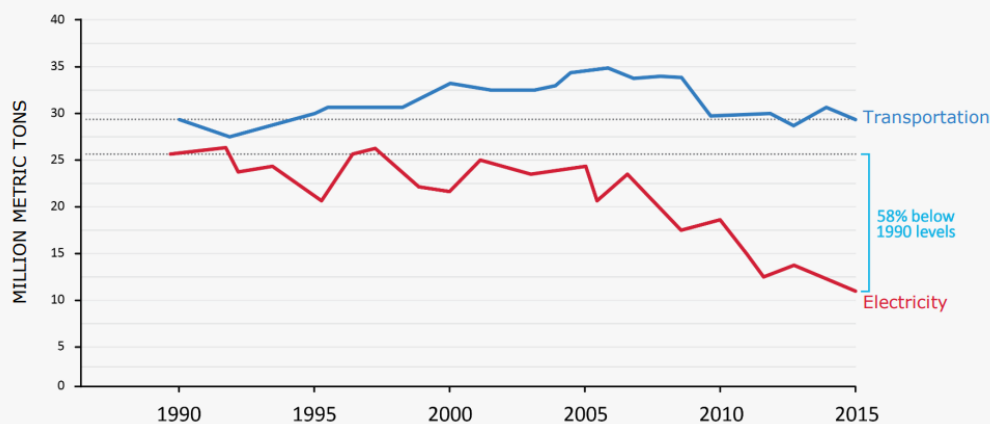
⁸⁹ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Recommendations to Meet the Transportation Future](#), December 2018.

⁹⁰ Miller, Alana et al., [“Electric Buses: Clean Transportation for Healthier Neighborhoods and Cleaner Air”](#), U.S. PIRG Education Fund, May 2018.

⁹¹ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

⁹² Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

Figure 3: Transportation and Electricity CO2 Emissions in Massachusetts⁹³



Electric buses will also improve local air quality and public health across RTA districts. Currently, a majority of RTA bus fleets are powered by diesel, a highly polluting fuel that is internationally recognized as a likely carcinogen.⁹⁴ Diesel exhaust contains many dangerous pollutants, including nitrogen oxide which contributes to smog and ground-level ozone, particulate matter, small pieces of metal that can cause respiratory damage when inhaled, and cancer-causing hydrocarbons.⁹⁵ The city of Worcester, within the WRTA’s service area has the twelfth highest asthma rates in the country.⁹⁶ Springfield, within the PVRTA’s service area has the highest asthma rates in the country.⁹⁷

Though more expensive to purchase, electric buses are also cost-efficient for transit agencies in the long-run because they offer lower lifetime fuel and maintenance costs than their diesel counterparts.⁹⁸ Electric buses have fewer parts than conventional fuel models, meaning they often require less routine maintenance and fewer major repairs throughout their lifetime.⁹⁹ Additionally, electricity costs are consistently lower and less variable than diesel and natural

⁹³ Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#), December 2018.

⁹⁴ International: World Health Organization, International Agency for Research on Cancer, “[IARC: Diesel Engine Exhaust Carcinogenic](#)” (press release), 12 June 2012.

⁹⁵ Quian Di et al., “[Air Pollution and Mortality in the Medicare Population](#),” *The New England Journal of Medicine*, June 29, 2017.

⁹⁶ Asthma and Allergy Foundation of America, “[Asthma Capitals 2018: The Most Challenging Places to Live with Asthma](#),” August 23, 2018.

⁹⁷ Asthma and Allergy Foundation of America, “[Asthma Capitals 2018: The Most Challenging Places to Live with Asthma](#),” August 23, 2018.

⁹⁸ California Air Resources Board, 5th Innovative Clean Transit Workgroup Meeting (presentation– slide 40), 26 June 2017.

⁹⁹ California Air Resources Board, 5th Innovative Clean Transit Workgroup, 26 June 2017.

gas.¹⁰⁰ While electric transit buses costs around \$200,000 more than diesel buses, they can save a transit agency \$400,000 throughout their lifetime.¹⁰¹

In the Focus 40 deliberations that are ongoing for the MBTA, it is being suggested that the MBTA will no longer purchase additional buses powered only by diesel fuel. The MBTA will plan for all new and upgraded facilities to be able to accommodate a zero-emission fleet, and will also consider the feasibility of committing to a target date for transitioning to a fully zero-emission fleet. The RTAs should consider a similar approach.

While electric buses offer lifetime savings for transit agencies, RTAs will likely need additional capital assistance in order to make the switch. RTAs and MassDOT should seek federal funding opportunities to help with initial purchases and facility retrofitting.

Case Study, Worcester Regional Transit Authority: Electric buses have already proven themselves in Massachusetts. Since 2012, the Worcester Regional Transit Authority has been operating electric buses along its routes.¹⁰² The WRTA purchased its first three electric buses and supporting charging infrastructure with an FTA Clean Fuels grant. Despite initial concerns over the effects of cold New England weather on battery life, the buses performed better than expected in the notoriously hilly city. In the first three years of the WRTA electric bus program, the city has avoided an estimated 700 tons of CO₂ emissions. To date, the buses have saved the city over \$100,000 in fuel and maintenance costs, with a projected lifetime savings of \$390,000. Additionally, passengers have noted the buses provide a quieter and smoother ride, free from the unpleasant odors often associated with diesel engines.¹⁰³

¹⁰⁰ U.S. Energy Administration Information, "[Petroleum & Other Liquids](#)," March 20, 2019; U.S. Dept. of Energy, "[Charging Electric Vehicles](#)", Alternative Fuels Data Center, March 18, 2019.

¹⁰¹ Casale, Matthew and Brendan Mahoney, "[Paying for Electric Buses: Financing Tools for Cities and Agencies to Ditch Diesel](#)", U.S. PIRG Education Fund, Fall 2018.

¹⁰² Church, Jonathan (2017). "*Worcester Regional Transit Authority Battery Electric Bus Deployment Project*" (presentation).

¹⁰³ Church, Jonathan (2017). "*Worcester Regional Transit Authority Battery Electric Bus Deployment Project*" (presentation).

Other Concepts

This report provides numerous recommendations to move the RTAs forward, improve RTA performance, and sustain and grow critical transit services that the Commonwealth of Massachusetts needs and deserves. The Task Force was not able to consider all topics of potential relevance to the RTAs, but this does not mean that the discussion for improving regional transit has to end here. Other topics for future consideration include the use of non-traditional performance metrics (see Appendix D), the use of centralized, standardized and customer-friendly technologies for RTA operations, the use of technology that could make paratransit more useful and responsive, and how mobility can be enhanced in communities not served by the RTAs. The Task Force hopes that this report will help prepare the RTAs to meet the challenges ahead.

Additional recommendations and action items approved by the Task Force can be found in Appendix D.

Appendices

Appendix A – Task Force Members

Appendix B – Task Force Meetings

Appendix C – Massachusetts RTAs

Appendix D – Additional Recommendations

Appendix E – Public Comment

Appendix A – Task Force Members

Task Force on Regional Transit Authority Performance and Funding Appointed Members

Rail & Transit Administrator of MassDOT, Chair

- Ms. Astrid Glynn

2 members of the House of Representatives

- Representative Hannah Kane
- Representative Sarah Peake (via Speaker of the House DeLeo)

2 members of the Senate

- Mr. Paul Lundberg, Gloucester City Council President (via Senator Bruce Tarr)
- Senator Harriette Chandler (via Senate President Karen Spilka)

3 persons to be appointed by the RTA administrators

- Ms. Angela Grant, Martha's Vineyard Transit Authority (VTA) Administrator
- Mr. Erik Rousseau, Southeastern Regional Transit Authority (SRTA) Administrator
- Ms. Sandra Sheehan, Pioneer Valley Transit Authority (PVTA) Administrator
- Alternate: Mr. Frank Gay, Greater Attleboro-Taunton Regional Transit Authority (GATRA) Administrator

11 persons to be appointed by the Governor

- 3 former or current RTA administrators
 - Mr. Reinald Ledoux, Brockton Area Transit (BAT) Administrator
 - Mr. Edward Carr, MetroWest Regional Transit Authority (MWRTA) Administrator
 - Mr. Thomas Cahir, Cape Cod Regional Transit Authority (CCRTA) Administrator
- 2 experts in bus service planning
 - Ms. Lynn Ahlgren, Ahlgren Consulting
 - Ms. Melissa Dullea, Senior Director of Service Planning, Massachusetts Bay Transit Authority (MBTA)
- 2 chief elected official of city or town manager of a city or town served by an RTA
 - Mayor Daniel Rivera, City of Lawrence
 - Mayor Sefatia Romeo Theken, City of Gloucester
 - Represented by Felicia Webb, Cape Ann Transportation Authority (CATA)
- 1 representative of an employer or business organization served by an RTA
 - Ms. Stephanie Cronin, Middlesex 3 Coalition
- 1 representative of the rider community
 - Ms. Franny Osman, Rider Representative for Lowell Regional Transit Authority (LRTA) Advisory Board
- 1 representative of the disabled commuter population
 - Ms. Catherine Klabish, Disabled Rider Representative for Brockton Area Transit (BAT) Advisory Board
- 1 representative of an organization that advocates for RTA riders
 - Ms. Gail Farnsworth-French, Quaboag Valley Community Development Corporation (CDC)

Appendix B – Task Force Meetings

Task Force on Regional Transit Authority Performance and Funding Meeting Summary

Meeting #1 – October 3, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Swearing in of members
- Overview of Task Force purpose and process
- Identification of topics for consideration

Meeting #2 – October 11, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Economic Development
- Discussion of the role of RTAs in economic development

Meeting #3 – October 17, 2018 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- RTA performance measurement and metrics
- Discussion of RTA performance management

Meeting #4 – October 24, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Human Service Transportation (HST)
- Presentation by Sharna Small-Borsellino (EOHHS)
- Discussion of RTA/HST brokerage system

Meeting #5 – November 8, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Discussion of best practices & innovation in transit
- Local and national examples

Meeting #6 – November 15, 2018 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued discussion of best practices & innovation in transit
- Local and national examples

Meeting #7 – November 28, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Discussion of demographic changes & needs
- Master's Presentation by Elizabeth McCarthy on RTA Network Analysis using GTFS Data
- Discussion of report drafting process

Meeting #8 – December 7, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Discussion of RTA fare policy
- Review of proposed RTA performance metrics
- Review of additional performance metrics for consideration

Meeting #9 – December 12, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Discussion of RTA funding
- National examples of funding structures
- Discussion of conceptual Massachusetts alternative funding structures

Meeting #10 – December 19, 2018 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- A review of demographics and transit in Massachusetts
- Continued discussion of RTA funding
- Presentation by Noah Berger (CCRTA) of the RTAs' perspective on funding

Meeting #11 – January 14, 2019 – Conference Room 4, 10 Park Plaza, Boston, MA 02116

- Contents review of the draft Task Force final report

Meeting #12 – January 17, 2019 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued review of the draft Task Force final report

Open House – January 22, 2019 – Main Conference Room, Suite 4160, 10 Park Plaza, Boston, MA 02116

- No deliberation
- Members of the Task Force were invited for conversation, an opportunity to review material previously presented, and bring suggestions for additional material
- Members of the public were welcome

Meeting #13 – January 24, 2019 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued review of draft Task Force final report
- Discussion and suggestions of recommendations and action items

Meeting #14 – January 29, 2019 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued review of draft Task Force final report
- Discussion and suggestions of recommendations and action items
- Presentation by Secretary Pollack on the status of the RTA Task Force

Meeting #15 – February 6, 2019 – Conference Room 2/3, 10 Park Plaza, Boston, MA 02116

- Continued discussion of topics and information for the draft Task Force report
- Adoption of recommendations and action items through consensus vote

Meeting #16 – February 13, 2019 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Discussion and crosswalk of “A Vision for the Future of Massachusetts Regional Transit Authorities” Draft Report
- Additional recommendations and action items

Meeting #17 – February 27, 2019 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Concept mapping of substantive issues/topics for draft Task Force report

Meeting #18 – March 5, 2019 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued concept mapping of substantive issues/topics for draft Task Force report

Meeting #19 – March 7, 2019 – Conference Room 1, 10 Park Plaza, Boston, MA 02116

- Continued concept mapping of substantive issues/topics for draft Task Force report

Public Meetings #1-3 – March 20-22, 2019

- Worcester Public Library – WRTA
- Hyannis Transportation Center – CCRTA
- UMass Amherst – PVTA
- See Appendix E for more details

Meeting #20 – April 5, 2019 – MassDOT Board Room, 10 Park Plaza, Boston, MA 02116

- Final wrap-up

Appendix C – Massachusetts RTAs

[Brockton Area Transit \(BAT\)](#)

155 Court St, Brockton, MA 02302

Phone: (508) 588-1000

TTY: (508) 586-0009

[Berkshire Regional Transit Authority \(BRTA\)](#)

1 Columbus Ave, Suite 201, Pittsfield, MA 01201

Phone: (800) 292-BRTA

[Cape Ann Transportation Authority \(CATA\)](#)

2 Pond Rd, Gloucester, MA 01930

Phone: (978) 283-7916

[Cape Cod Regional Transit Authority \(CCRTA\)](#)

215 Iyannough Rd, PO Box 1988, Hyannis, MA 02601

Phone: (800) 352-7155

TTY: (800) 439-0183

[Franklin Regional Transit Authority \(FRTA\)](#)

12 Olive St, Suite 1, Greenfield, MA 01301

Phone: (413) 774-2262

[Greater Attleboro-Taunton Regional Transit Authority \(GATRA\)](#)

10 Oak St, Taunton, MA 02780

Phone: (800) 483-2500

TDD: (508) 824-7439

[Lowell Regional Transit Authority \(LRTA\)](#)

145 Thorndike St, Lowell, MA 01852

Phone: (978) 459-0164

[Martha's Vineyard Transit Authority \(VTA\)](#)

11 A Street, Edgartown, MA 02539

Phone: (508) 693-9440

[Merrimack Valley Regional Transit Authority \(MVRTA\)](#)

85 Railroad Ave, Haverhill, MA 01835

Phone: (978) 469-6878

[MetroWest Regional Transit Authority \(MWRTA\)](#)

15 Blandin Ave, Framingham, MA 01702

Phone: (508) 935-2222

TTY: (508) 935-2242

[Montachusett Regional Transit Authority \(MART\)](#)

R1427 Water St, Fitchburg, MA 01420

Phone: (978) 345-7711

TTY: (800) 789-0577

[Nantucket Regional Transit Authority \(NRTA\)](#)

20-R S. Water St, Nantucket, MA 02554

Phone: (508) 228-7025

TTY: (508) 325-7516

[Pioneer Valley Transit Authority \(PVTA\)](#)

2808 Main St, Springfield, MA 01107

Phone: (877) 779-7882

TTY: (877) 752-2388

[Southeastern Regional Transit Authority \(SRTA\)](#)

700 Pleasant St, Suite 320, New Bedford, MA 02740

Phone: (508) 999-5211

[Worcester Regional Transit Authority \(WRTA\)](#)

60 Foster St, Worcester, MA 01608

Phone: (508) 791-WRTA

Appendix D – Additional Recommendations

The following recommendations and action items were adopted by the Task Force on February 6, 2019 and are reflected in the body of the report.

1. RTAs have completed Comprehensive Regional Transit Plans (CRTPs) and submitted each plan to MassDOT. These plans were prepared with community stakeholder public input, identified community needs for service and restructuring, and ensured consistency with state and regional goals.
 - a. *Action Item:* With support from MassDOT, the RTAs will update the CRTPs every five years to help the RTAs and MassDOT understand the needs of the region.
 - b. *Action Item:* MassDOT shall provide technical assistance to help the RTAs with transportation planning and data analysis, particularly to implement best practices and performance standards. The form of technical assistance will vary from RTA to RTA. In some cases it may mean a staff position, in others it may mean access to a shared contract capacity.
2. RTAs will continue to succeed by understanding their markets and by aiming to have their service networks meet the current and future mobility needs of their region as well as support connectivity to other regions where possible. This effort will be guided by (1) the completion or updating of CRTPs every five years; (2) the evaluation of current service based on RTA service policies and standards, and (3) participation in local and regional planning processes.
 - a. *Action Item:* To enable RTA periodic completion or updating of CRTPs, as well as participation in local planning processes (zoning and development reviews, and the development of bicycle and pedestrian plans) MassDOT will offer a local match for federal statewide planning funds (Section 5303) used for transit. The RTAs will coordinate their planning activities with the Regional Planning Agencies (RPAs) as well as MassDOT and local municipalities.
 - b. *Action Item:* Based on the CRTPs, local participation and other data (including performance and demographic), RTAs will evaluate the sustainability and value of existing service and analyze the cost and benefits associated with delivering any new service. RTAs will assess the viability of any new service based upon the benefits and the availability of operational and financial resources. During the Program Preview process, RTAs and MassDOT will discuss the need for additional resources to meet the unmet need if available operational and financial resources do not allow for current service or needed expansions.
 - c. *Action Item:* RTAs will use performance metrics and data to continually evaluate whether the current system meets the needs of the region.
 - d. *Action Item:* MassDOT will provide technical support for route planning to rural RTAs that do not receive the benefits of Section 5303 Federal funding.
 - e. *Action Item:* MassDOT will offer technical support to RTAs for updating their standards and service policies. MassDOT will specifically offer technical assistance to RTAs who wish to install APCs on their fleets.

3. Wherever documented demand does not support traditional fixed-route services, RTAs will work with residents to understand available transportation options and help identify the most appropriate service.
 - a. *Action Item:* RTAs will continue to collaborate with Regional Coordinating Councils, Councils on Aging, the Executive Office of Health and Human Services/Human Service Transportation, and local/regional social service agencies to help seniors, persons with disabilities, and members of vulnerable populations understand their mobility options, receive travel training, and assist in identifying the most appropriate service.
 - b. *Action Item:* Based on CRTPs and other related planning studies/demographic data, RTAs will work with local partners, including TMAs, municipalities, regional economic development organizations (REDOs), Chambers of Commerce, employment centers, Workforce Investment Boards, and major business and educational institutions, to provide appropriate levels of transportation service to the working population and students.
4. Wherever fixed-route service may be warranted given transit-supportive documented demand, or to provide access to major employment centers, colleges and universities, the service, whenever possible, should be based on a partnership between the RTA, TMAs and the employers and/or major institutions. These partnerships can help support employment, health care and other regular and recurring trip purposes for their workers and clients.
 - a. *Action Item:* RTAs will collaborate with local employers, municipalities, colleges and universities, health care providers, and any other regional partners that can assist in identifying mobility needs and discuss prioritizing those needs and/or provide financial support.
5. RTAs will perform regular analysis, community outreach, and actively participate in the MEPA process to: (a) understand employment patterns, (b) identify opportunities to establish partnerships, and (c) explore potential service adjustments and potential new service to meet demand.
 - a. *Action Item:* MassDOT will work with the MEPA Office to review practices and guidelines to ensure that that RTAs transportation needs and options are fully considered throughout the MEPA environmental review process.
 - b. *Action Item:* RTAs will engage with local developers, municipalities (i.e. economic developers), employers, and planners to demonstrate how transit can enhance value, particularly with transit oriented development.
 - c. *Action Item:* MassDOT, the RTAs, municipalities, TMAs, and MPOs will work together to identify where RTAs can best advocate the value of transit during the local permitting and zoning processes that are not elevated to the MEPA level. A suggested example would be during the UPWP process or during municipal department meetings.
 - d. *Action Item:* MassDOT shall convene conversations with HST, MassHire, and Mass Office of Business Development (MOBD).
 - e. *Action Item:* The RTAs should commit to regular, data driven reviews of service to determine if resources could be better deployed.

6. MassDOT and the RTAs will work together to better understand the HST brokerage and service provision contract model and identify opportunities for improved service and productivity that provides a strong “safety net” for vulnerable populations in both rural and urban areas.
 - a. *Action Item:* MassDOT will meet with EOHHS/HST and the RTAs to identify innovative service pilots to optimize cost-efficient service delivery solutions for NEMT consumers, while also supporting maximum use of the existing transit network.
 - b. *Action Item:* MassDOT and the RTAs will consult with MassHealth and HST on the eligibility for the provision of bus transit passes to NEMT consumers under Medicaid rules. Bus passes would be a lower cost option for NEMT consumers when the public transit network is available. RTA brokers could then supplement with HST brokerage transportation when public transit is not available (nights and weekends).
 - c. *Action Item:* RTA brokers and service providers will devise several innovative service pilot ideas to present to HST along with MassDOT. These ideas might include better rules to discourage no show trips, the use of more volunteer driver programs, and the use of transportation network options.
7. RTA brokers of HST service need to have strong, transparent, and consistent cost allocation systems in place to ensure that the capital and operating costs for both the brokerage and public transit systems are assigned to the appropriate cost center for reimbursement.
 - a. *Action Item:* RTA brokers will collaborate with HST on the development of a program-wide database, and use the same software system to support information sharing and reporting from a consistent and common dataset. This approach could improve cost-effectiveness, fraud deterrence and customer service by enabling HST and MassDOT to better evaluate and compare each RTA broker’s actual costs and performance in delivering NEMT trips and identify strategies for improvement.
 - b. *Action Item:* MassDOT, MassHealth and the RTAs will meet to identify potential opportunities for cost savings and possible amendment of the policies to optimize service delivery. This should include maximizing the ridership potential of brokerage transport.
8. RTA leadership will work to strengthen community outreach. This can be done in a variety of ways, including establishing Consumer Technical Advisory Committees or Councils, scheduled open office hours, or other consumer outreach strategies.
 - a. *Action Item:* RTA leadership will be encouraged to join local boards (i.e. Chamber of Commerce, MassHire, REDOs, and TMAs (ex officio)) to further develop stakeholder relations and identify community mobility needs and opportunities.
 - b. *Action Item:* In their roles as regional mobility managers, RTAs should host and chair Regional Coordinating Council meetings that are designed to improve communication among key businesses, schools, community-based organizations, planning agencies, and local governments regarding

transportation opportunities and challenges. RTA staff should regularly update their Advisory Boards regarding issues raised at RCC meetings.

- c. *Action Item:* MassDOT will reach out to RTAs and their Advisory Boards to inquire about their training and resource needs to support data driven decision-making. MassDOT is available to offer technical assistance to meet those needs.
9. The Commission on the Future of Transportation in the Commonwealth urges the prioritization of investment in public transit as the foundation for a robust, reliable, clean and efficient transportation system. Public transit systems can support economic development, job creation, reduce pollution. Transit can also be key in meeting the GHG climate goals and is critical to get to work, school and go about the daily life for those without access to a private automobile. RTA CRTPs should identify how the RTAs will advance these principles.
 - a. *Action Item:* MassDOT and each RTA will review implementation of the CRTPs as part of the Program Preview Process.
10. RTAs should actively participate in their respective region's Transportation Advisory Group. The Transportation Advisory Group was established by the 3-C (Comprehensive, and Continuing, Cooperative) Memorandum of Understanding (MOU), which emphasizes a comprehensive, cooperative and continuing process for transportation planning and programming. The Advisory Group is designed to assist the MPO in incorporating citizen participation in transportation decisions which provides a mechanism for federal, state, and local input into the regional transportation planning process.
 - a. *Action Item:* As part of the MPO process, each RTA will assign a representative to their region's Transportation Advisory Group.
11. RTAs should allocate adequate resources for professional development and work with MassDOT to obtain supportive technical assistance. Improving the knowledge base of the staff (RTA and/or RPA) could help the RTA's become aware of the many technological improvements taken place and how those are reshaping the transportation network.
 - a. *Action Item:* MassDOT and the RTAs will collaborate to facilitate information sharing through peer to peer collaboration and transit associations.
12. MassDOT and the RTAs should cooperate to incorporate technological advances into transit service. Microtransit, APC, AVL, all these technologies require resources not only for planning, design, purchasing, implementation but also for annual maintenance. In addition, technologies evolve extremely fast requiring constant updating of systems. Incorporation of technology systems into RTA transportation will increase customer service, attractiveness of public transit service and ease of use, and provide valuable information for data driven decision-making.
 - a. *Action Item:* MassDOT shall assist RTA route and service planning efforts by providing technical assistance and help to fund supportive technology, such as automatic passenger counters and automated fare collection systems.
13. RTAs should develop pilot programs that include innovative transit delivery models. By piloting different transit models, the RTAs will be able to determine what will improve transit delivery in their service area.

- a. *Action Item:* RTAs will implement pilot programs whenever discretionary funds are made available for a pilot, and the results of the pilot will be shared with other RTAs.
14. Access to General Transit Feed Specifications (GTFS) technology as used in the MassDOT RTA Task Force presentation would assist the RTAs and RPAs in mapping current routes but also to identify where transit service could be added and restructured.
 - a. *Action Item:* As part of MassDOT's technical assistance program, MassDOT will provide GTFS mapping services to the RTAs and RPAs to allow update to data for service planning.
15. Projects that do not trigger a MEPA review are subject to municipal development plan approval process, which may not require coordination with the RTA. The inconsistent early coordination can delay service to the site, provide inadequate transit amenities, or present an unsafe condition for passengers. These issues can be avoided if the development process includes a provision to notify the RTA of the intent to develop a site that may affect demand for public transit service.
 - a. *Action Item:* The RTAs and MassDOT in coordination with the Regional Planning Agencies will explore options to develop guidelines for municipalities so that notice is given to the RTA regarding proposed development projects that may affect demand for transit service. RTAs are strongly encouraged to participate in the review of projects that they are notified of.
16. As mobility managers in their regions and stewards of public funds, RTAs shall take active steps to evaluate the appropriateness of supporting new and existing economic and housing development with transit options and, when appropriate, make recommendations to project proponents regarding transit options. RTAs will work with MassDOT and EEA to participate early in the environmental review and design phases of new developments, roadway and signalization projects in their regions so that these projects incorporate features that support accessible and convenient transit stops, transit vehicle flow, and bicyclist and pedestrian needs.
 - a. *Action Item:* RTAs will collaborate with the cities, towns and MassDOT in their service areas to facilitate bike and pedestrian access to transit and to incorporate design elements that will expedite bus operation (i.e. bus stops/pull outs, etc.) that not only provide better service, but also reduce GHG emissions by decreasing congestion and time spent idling in traffic.
 - b. *Action Item:* RTAs and MassDOT will develop material that can be used to educate decision makers (including members of the Legislature) on the interdependency of transit, housing, and commercial development. This material may include national examples as well as local ones.
 - c. *Action Item:* MassDOT will establish a website where RTAs can post the initiatives that they have undertaken to support transit-friendly economic development and to enlist local stakeholders in plans to increase ridership. The information will both share best practices and allow the RTAs to report on the outcomes (i.e. ridership increases) of those initiatives.

- d. *Action Item:* RTAs and MassDOT will work with municipalities, developers, businesses, and TMAs to encourage TDM initiatives in the planning process that work for each community.
 - e. *Action Item:* Accessibility and sidewalks should be a primary action item. Accessibility benefits a large portion of RTA customers: disabled, elderly, strollers, and pedestrians in general. Sidewalks/accessibility can make a transit service significantly more comfortable and convenient. RTAs should support this principle at the local level.
17. The RTAs and MassDOT's Office of Transportation Planning (OTP) will collaborate on a process that will not only bring RTA suggestions into the Massachusetts Environmental Policy Act (MEPA) process, but also improve the likelihood that those suggestions will be incorporated into the Section 61 findings that establish the basis for any access permit that MassDOT may be asked for at the conclusion of the MEPA process.
- a. *Action Item:* OTP will contact the RTA when a relevant project is entering MEPA or undergoing MEPA review. OTP will solicit from the RTA information on commitments that it would ask the project proponent to make to facilitate transit usage. This could be funding for a pilot service, a bus shelter, a pedestrian crosswalk, subsidizing transit passes, marketing transit services to tenants, or other TDM initiatives, including first mile/last mile programs. OTP will include that material in MassDOT's comment letter to MEPA and ask that the contents be reflected in the final certificate that concludes the MEPA process.
18. RTAs should sustain or pursue new partnerships with Transportation Network Companies (TNCs), Transportation Management Associations (TMAs), Councils on Aging, and local businesses and other activity generators, not only to increase revenue or cut costs but also to provide cutting-edge mobility options to their riders. With the rapidly changing demographic and mobility landscape, Massachusetts residents and visitors are increasingly seeking flexible and cost-effective options to get them where they need to go. These options include car, bike and scooter sharing, on-demand mobility with TNCs, flexible micro-transit services, shuttles, and in the future will involve autonomous vehicles. If they are to provide competitive service and be the innovators that their riders expect, RTAs must look ahead and be at the forefront of identifying the best options from among increasing mobility choices, to facilitate and/or deliver optimum cost-effective service to their customers.
- a. *Action Item:* MassDOT will offer technical assistance to help RTAs structure partnerships with local stakeholders (i.e. educational institutions, municipalities, MassHIRE, REDOs, TMAs, hospitals, assisted living facilities, other major employers, etc.) to design, implement, and measure targeted services that will increase ridership or make existing services more efficient and cost-effective.
 - b. *Action Item:* As part of the annual Program Preview process, each RTA will discuss with MassDOT, the status of its existing partnerships and prospects for transit-supportive economic development opportunities that are expected in that RTA's region.
19. RTAs will review existing customer outreach strategies, particularly in the area of foreign languages and social media, to facilitate effective, robust connections with their riders.

RTAs will continue to conduct regular customer service surveys and outreach meetings, and not just rely on customer complaints to obtain service feedback. These customer service strategies should continue to be part of the RTAs performance plan and should be measured regularly.

- a. *Action Item:* For fare increase/service change meetings, or CRTP outreach sessions, RTAs will conduct public meetings with translation services available for the majority of customers (if appropriate).
 - b. *Action Item:* RTAs will convene meetings at COAs and at Areas Agencies on Aging. RTAs will convene meetings that include drivers and dispatchers as well as residents.
20. The RTAs have done a good job at keeping their fleets and facilities in a State of Good Repair (SGR). As they plan to replace vehicles, RTAs need to increase the share of low-emission electric vehicles in their fleet. This is critical to helping the Massachusetts Commonwealth meet the Global Warming Solutions Act (GWSA) 2050 mandate. As they plan new facilities, RTAs will incorporate sustainable materials and practices in the design and construction of these structures.
- a. *Action Item:* RTAs will take advantage of joint procurement opportunities, particularly for vehicle purchases, to achieve cost savings. As they continue to procure no emission buses, joint procurement actions would not only be cost effective but would also provide RTAs with similar buses and enable them to establish joint maintenance training opportunities for their workforces.
21. RTAs will continue to collaborate with the RPAs for the development of the region's Unified Planning Work Program. Each year, Metropolitan Planning Organizations (MPOs) are required to prepare a Unified Planning Work Program (UPWP), in cooperation with member agencies, to describe all anticipated transportation planning activities over the course of the upcoming federal fiscal year. This will allow for regular service planning of the RTAs service area, assistance from the RPAs planning staff and access to regional data.
- a. *Action Item:* MassDOT will work with the RTAs to coordinate with RPAs in the development of the annual UPWP.
22. RTAs will continue to collaborate with the RPAs in the updates to the region's long range transportation plans. The RTP for each of the RPAs regions outlines the direction of transportation planning and improvements for that region for the next 20 years. The RTP provides the basis for the TIP as well as state and federal funding for regional transportation planning and projects. While focusing on transportation, the RTP is a comprehensive planning document that incorporates regional economic development and land use considerations.
- a. *Action Item:* The RTAs should provide input on the future of transportation in the each of the regions they serve.
23. Maintain RTA Council and language below. The RTAs and MassDOT will collaborate to reinvigorate the RTA Council quarterly meetings as provided by MGL Chapter 161B Section 27: *"There shall be a regional transit authority Council for the purposes of coordination and sharing information and best practices in matters of security and public safety planning and preparedness, service delivery, cost savings, and administrative*

efficiencies. Members of the Council shall include the administrator of each authority established under section 14. The Secretary shall be Chairman of the Council and the General Manager of the Massachusetts Bay Transportation Authority shall be a nonvoting member of the Council. The Council shall meet no less than once each calendar quarter or upon the request, with reasonable notice, of the Secretary.” The RTA Council will provide a forum for the discussion of best practices in financial and operational management to strengthen a culture of continuous improvement and innovation among RTAs across the Commonwealth. Past Council activities have included:

- a. RTAs presenting best practice models each meeting
 - b. RTAs and DOT (EOTC at the time) coordinated RTA funding formula and RTA forward funding process
 - c. RTAs and MBTA coordinated interoperability with MBTA Charlie Card for providing one fare platform for customer convenience
 - d. *Action Item:* MassDOT will use the RTA Council to accomplish this recommendation.
24. RTAs will continue to report the eight performance metrics listed below in bold, as well as two additional measures regarding the Transit Asset Management Plan Performance Reporting required by FTA, and on time performance (OTP). RTAs will continue to report quarterly to MassDOT on all required measures. While MassDOT understands that data is seasonally variable and not consistent throughout the year, and that operating expenses and revenue will not be validated by the annual audit until the fall after the fiscal year ends, MassDOT will work with the RTAs to allow data to be labeled “estimated” where necessary. MassDOT will also add a column to the reporting format to enable RTAs to list the previous year’s metrics so that year to year comparisons can be displayed.
- a. *Action Item:* RTAs will report the performance metrics listed below on a quarterly basis.
 - b. *Action Item:* MassDOT will provide RTAs with technical assistance as needed, on the use of performance metric data to drive decision-making.
25. RTAs will continue working closely with MassDOT on the implementation of the Federal Transit Administration’s Transit Asset Management requirements, and to provide MassDOT with data on achievement of their TAM targets quarterly.
- a. *Action Item:* RTAs shall also keep their Asset Management Database (TransAM or other) up to date and allow “read-only” access to MassDOT Office of Rail and Transit for capital planning analysis. Furthermore, RTAs will develop their Capital Investment Plan (CIP) Scenarios in accordance with their Transit Asset Management (TAM) Plan.
26. All RTAs will develop a customer-centric system for measuring reliability, particularly on-time performance. Some RTAs, based on route lengths and other operating characteristics might benefit from utilizing mid-route time points in their analysis of on-time performance. Where appropriate, RTAs will consider and evaluate such an analytic metric as it relates to improving the customer experience.

- a. *Action Item:* MassDOT will work with the RTAs to determine the specifics of their on-time performance measure.
27. RTAs will review the following additional metrics and consider adding them to their performance management system as appropriate:
- a. Environmental Benefits
 - i. Energy savings/passenger
 - ii. Energy savings/funding
 - iii. Total CO₂ emissions
 - iv. Total diesel consumption
 - v. Total electricity consumption
 - vi. Transit facility energy use covered by alternative sources (%)
 - b. Network Coverage
 - i. Transit dependent population served (%)
 - ii. Jobs/employment opportunities served (%)
 - iii. Community activity centers/major streets/municipalities served (%)
 - iv. Increase/decrease in medical appointments made/missed
 - c. Ridership Patterns
 - i. Passes sold for fixed route
 - ii. Demand response usage per rider
 - iii. Passengers per trip by route
 - iv. Vehicle loading/overcrowding
 - d. Financial
 - i. Budgeted vs. actual revenue
 - ii. Budgeted vs. actual expenses
 - e. Communication/Outreach
 - i. Frequency of meetings w/ stakeholders
 - ii. Social media connections (# of tweets, # of website hits, # of followers on twitter, etc.)
 - f. Congestion
 - i. Actions taken to make vehicles move faster (e.g. traffic signal prioritization, special bus lanes, etc.)
 - g. RTA Specific Measure
 - i. An RTA specific metric that measures something unique to that particular RTA system
 - h. *Action Item:* RTAs will work with MassDOT Planning and Regional Planning Agencies to help establish a methodology for collecting and reporting data for this type of unique measure
 - i. *Action Item:* RTAs will work with MassDOT to identify and secure common methodology and systems to collect, track, and analyze the data collected.
 - j. *Action Item:* MassDOT will work with the RTAs to identify opportunities to evolve individual metrics to common metrics.
28. MassDOT will require each RTA to provide a report on how they use performance metrics to support data driven decision-making and a culture of continuous

improvement, and their practices for transparently sharing this information with internal and external stakeholders, including but not limited to advisory board members.

- a. *Action Item:* MassDOT will use the RTA Council to provide a forum for the discussion of best practices and performance management in financial and operational management to strengthen a culture of continuous improvement and innovation among RTAs across the Commonwealth.
29. RTAs shall regularly communicate, collaborate, and exchange successful best practices, including but not limited to business relationships, initiatives, and models, partnerships, pilots, and all other successful endeavors so that their peer RTAs can adopt similar approaches within their service areas.
- a. *Action Item:* MassDOT will provide forums (i.e. through the RTA Council meetings) to allow RTAs to exchange best practices.

Appendix E – Public Comment

Public Review Draft Report Outreach

The Task Force on Regional Transit Authority Performance and Funding released the Public Review Draft Report on March 15, 2019. Stakeholders were encouraged to provide written comments by email through March 29, 2019. In addition, the Task Force held a series of three public meetings in collaboration with the RTAs in the following locations:

Wednesday, March 20, 2019 – 5:00PM-7:00PM – Worcester Regional Transit Authority (WRTA)

Worcester Public Library
3 Salem Square
Worcester, MA 01608

Thursday, March 21, 2019 – 3:00PM-5:00PM – Cape Cod Regional Transit Authority (CCRTA)

Hyannis Transportation Center
215 Iyannough Road, Community Conference Room, 1st floor
Hyannis, MA 02601

Friday, March 22, 2019 – 4:00PM-6:00PM – Pioneer Valley Transit Authority (PVTA)

UMass Amherst Campus Center
1 Campus Center Way, 1st Floor Campus Center, Room 168
Amherst, MA 01003

The purpose of these public meetings was to present an overview of the Task Force Public Review Draft Report and to provide the public with the opportunity to give verbal and/or written testimony. Notification of the meetings was posted to the [Task Force website](#) and the events were held in western, central and southeastern MA to enable citizens from across the state to participate. Meeting locations were accessible.

Of the 149 people who attended the meetings, 67 gave verbal testimony. Attendance at each event was as follows:

Worcester: 38 attendees (15 persons provided public comment)

Hyannis: 48 attendees (29 persons provided public comment)

Amherst: 63 attendees (23 persons provided public comment)

In addition, 46 individuals provided written comments by email.

Figure 4. The audience at the Worcester Public Library listens to Astrid Glynn, Task Force Chair, as she introduces the Task Force members present.



Photo courtesy of MassDOT Communications Office

Figure 5. The audience at the Hyannis Transportation Center listens to Astrid Glynn, Task Force Chair, as she presents an overview of the draft report.



Photo courtesy of Rep. Peake's Office

Figure 6. A resident from the FRTA region speaks to the Task Force at the meeting held at UMass Amherst.



Photo courtesy of MassDOT Transit Department

Figure 7. A resident from the PVRTA region speaks to the Task Force at the meeting held at UMass Amherst.



Photo courtesy of MassDOT Transit Department

Public Comment Summary

Summary of Comments Received at Public Meetings and By E-Mail and Task Force Response

Summary themes of the public comments received are detailed below under each of the five categories in the Final Report: 1) Investment and Performance; 2) Accountability; 3) Service Decisions; 4) Quality of Service; and 5) Environmental Sustainability. Comments that did not fit under these categories were summarized under the subtitle “Other.” The Task Force Response to comments is also included.

In general, commentators liked the report and its vibrant vision for the future of RTAs in the Commonwealth. Many participants who spoke at the public meetings were RTA riders who appreciated the report’s focus on the transit rider, the need for additional investment, and suggestions for improving and modernizing RTAs.

Investment and Performance

Summary Themes:

Comments: The majority of comments received supported the Report’s recognition of the need for stable, predictable and long-term funding, with strong support for the \$90.5M funding level for FY2020. At all three public meetings, a majority of those speaking expressed a belief that increased funding is an important part of improving regional transit. This was also reiterated in a majority of the written comments received. Some comments indicated that the \$90.5M funding level is a good start, but suggested that more is needed, particularly for rural areas and for Gateway Cities. There were many comments complaining about service cuts and urging that this service should be restored and expanded to meet the needs of local communities. Some commentators suggested that the \$90.5M figure be the minimum amount received for FY2020, and that additional funding for discretionary grants should be above that number.

Response: The Task Force reiterates its conclusion that RTAs need long term financial predictability and stability in order to innovate, expand and improve their services. In Recommendation 1, the Task Force endorsed the provision of \$90.5 Million in state contract assistance for FY2020. The consensus in favor of this recommendation reflected assertions of need voiced by Task Force members similar to those that the public articulated at the public meetings.

Comments: Many comments voiced strong support for a codified automatic inflator, indicating that it would be beneficial to all RTAs and would reflect year-over-year cost increases. It was suggested that the budget language be determined early so that transit systems can plan ahead, as well as the observation about the importance of reviewing service costs.

Response: The Task Force also endorsed the addition of an automatic inflator in Recommendation 1, as a means to achieved continued financial predictability and stability. The

Task Force also notes that, while state agencies generally do not have the benefit of automatic escalators, there is precedent in the annual increase that was adopted for the MBTA.

Comments: The connection of funding to performance was applauded by many, with the suggestion that the performance targets need to be flexible. There was strong support for the individualization of these metrics, as many commentators agree that all RTAs are unique and therefore their performance should be monitored independently. RTA performance should measure how they serve their region's transit needs, rather than be compared to each other. It was important to several commentators that performance targets for rural RTAs take into account the higher cost of service and travel time. One commentator suggested that RTAs should also share their performance reports and other analyses with their MPOs.

Response: The Task Force reiterates its recommendation that MassDOT and the RTAs should develop and implement a system that will make performance targets a pivotal factor in RTA data driven decision-making. In its report, the Task Force emphatically recognized the benefits of instituting a system of performance targets, having previously examined many alternative approaches, including examples from several other states. Recommendation 2 provided for the linkage of performance to funding through a Memorandum of Understanding (MOU) that will be individually negotiated between MassDOT and each RTA to include performance targets that are most relevant to that RTA's unique system.

Comments: There was strong recognition of the importance of local financial support for RTA service. Some commentators expressed interest in regional ballot initiatives (RBIs) as a key instrument to help municipalities generate funds for RTAs. However, one commentator strongly disagreed with the RBI approach.

Response: The Task Force agrees that local financial commitment to transit is vital, and in Recommendation 3, advocated that communities should be provided with the tools they need to increase local investment in transit, including regional ballot initiatives. However, in the Final Report, the Task Force also acknowledged that while it is important for local communities to increase investment as the state provides more funding for transit, regional ballot initiatives as a source of local revenue can be subject to different points of view.

Comments: Commentators expressed their support for establishing a collaborative working group with the Massachusetts Office of Human Service Transportation, MassDOT, RTAs and other stakeholders to explore how RTAs can improve service and save money in the delivery of brokered Non-Emergency Medical Transportation (NEMT) trips to HST consumers. The HST Office has reviewed the report and is looking forward to working closely with MassDOT, RTAs and other stakeholders to tackle the remaining issues regarding NEMT services. One commentator suggested the working group contain representation from both urban and rural human service agencies.

Response: The Task Force appreciates the support for establishing a Human Service Transportation collaborative working group as proposed in Recommendation 4, and agrees that

this group should seek money saving improvements to RTA/HST brokerage services. The Task Force believes that this working group will be valuable in identifying innovative opportunities for improved and cost efficient service that will provide a strong “safety net” for vulnerable populations in both rural and urban areas.

Accountability

Summary Themes:

Comments: There was support for keeping RTA governance local, as local elected officials and Advisory Boards know the needs of their communities the best. Many commentators believe that both decision-making and accountability belong with the RTAs and the communities they serve, and that a strong relationship between the RTA and their Advisory Boards and their operations company is key. Additionally, there was one comment that stated that RTA Advisory Boards need to be more representative of their member communities, as 60% of the population in Springfield is of color and goes underrepresented.

Response: The Task Force concurs that maintaining the existing local governance structure found in MGL Chapter 161(B) is very important. In Recommendations 5 and 6, the Task Force advocates for the reinvigoration of the RTA Council and other suggestions to achieve these goals. In addition, the Task Force appreciates the suggestion that RTA Advisory Boards be more representative of their member communities and suggests that the issue could be raised for discussion at a future RTA Council meeting.

Service Decisions

Summary Themes:

There were numerous comments in the Service Decision Category that related to service frequency, availability, piloting innovative mobility options, forming partnerships to improve and expand the transit network, providing better regional and cross-state connections, and improving service in rural areas and Gateway Cities.

Comments: Many commentators supported the need for increased evening, weekend, and summer service, in both urban and rural areas. Several commentators also specifically highlighted the need for more service in rural areas and spoke of their concern with the barriers to increased transit access, such as the lack of broadband and cell-phone service, especially in Western MA, and the challenges of surveying ridership in low density rural areas.

Response: The Task Force strongly agrees that transit services should meet demand in both urban and rural areas; as “mobility managers” that is a challenge that the RTAs will increasingly be asked to meet. Recommendations 7, 8 and 9 offer RTAs an approach to understanding the needs of the different types of communities in their regions and identifying services that meet these needs.

Comments: Many commentators expressed strong support for experimenting with innovative pilot programs, such as the use of TMAs, TNCs, microtransit and on-demand mobility services, particularly as options for workforce transportation and in rural areas. Commentators stated that testing different service delivery options will aid in RTA decision-making on how best to serve identified needs, in terms of both ridership and cost. Most commentators supported additional funding for innovative pilot programs.

Response: The Task Force agrees that it is critical for RTAs to pilot innovative service models that connect regions and maximize partnerships as they fulfill the “mobility manager” role. Recommendation 10 emphasizes the importance of pilot programs as a tool for RTAs to test these service models and identify successful approaches.

Comments: Commentators expressed their support for RTAs to continue to pursue local partnerships, particularly with TMAs, COAs, municipal shuttles and bikeshare companies. These partnerships are viewed as important and potentially beneficial.

Response: The Task Force concurs that partnerships provide valuable options to RTAs for service delivery and financial stability. Recommendation 9 advocates for the use of these partnerships to help meet demonstrated community needs.

Comments: Additionally, many commentators are concerned with the lack of interconnectivity between RTAs and across the state. Several commentators mentioned that there needs to be more cross-county service, cross-RTA service, and multi-modal connectivity between RTA services and rail, private express and commuter bus lines.

Response: The Task Force strongly agrees that both interconnectivity between RTAs and multi-modal connectivity across the state will improve access to transit and generate new ridership. The Task Force understands that current transportation patterns are often regional in nature and do not fit within set boundaries. Recommendation 11 encourages RTAs to further develop cross-border relationships and better unify the Commonwealth’s public transportation system. The Task Force also suggests that implementation strategies for statewide interconnectivity be addressed by the RTA Council in future meetings, as the RTA Council can operate as an important cross-regional body to help facilitate efficient statewide transportation.

Comments: The idea that a city or town could have membership in multiple RTAs was also raised by several written submissions.

Response: As previously noted, the Task Force firmly believes that interconnectivity is an important piece of a better unified transportation system, and would suggest that the question of multiple RTA membership be discussed at a future RTA Council meeting, furthering the discussion of improved interconnectivity.

Comments: Several commentators also expressed a desire for better north-south connections in Central Massachusetts, as they indicated that current services are focused primarily on east-west travel.

Response: The Task Force agrees that RTAs should understand their markets to meet to mobility needs of their regions. Recommendation 7 encourages RTAs to update and review their CRTPs to guide future service decisions. The Task Force also recognizes that this might be a good topic of consideration for the RTA Council.

Comments: Several commentators called for equity between the RTAs and the MBTA.

Response: The Task Force acknowledges that there should be equitable access to transit across the Commonwealth. Since the RTA Council has both RTA and MBTA membership, the Task Force suggests that this forum be used to discuss transit equity issues across systems.

Comments: Many commentators noted that it currently takes too long to get anywhere by public transit, as a 20-30 minute car ride often can take up to three hours by bus, and that better connectivity would attract new riders.

Response: The Task Force agrees that RTA service networks should meet the needs of their riders by offering services that efficiently take riders where they want to go. Recommendation 7 guides the RTAs toward a more market-focused and data driven service decision-making model.

Comments: Many commentators recognized the importance of transit support of economic activities and local commerce, and that numerous strong partnerships with local business, social organizations and transportation services not only benefit RTAs, but also the local communities they serve. These partnerships can even include local parks, such as the Cape Cod National Seashore.

Response: The Task Force agrees that partnerships are critical to successful RTA services and that transit is a key factor for supporting economic development and local commerce. In Recommendation 17, the Task Force outlined a new process for achieving this important goal which ultimately will lead to RTAs' identifying new partnerships and potential new services to meet development demand.

Comments: There were many comments received about the needs of vulnerable populations, such as the aging population, persons with disabilities, low-medium income populations, and the homeless. Many speakers advised that RTAs need to explore more transit options for these populations, with special care taken to determine their needs and access to economic, educational, social, and health opportunities.

Response: The Task Force agrees that transit service is critically important to vulnerable populations and to those who don't have access to other mobility options like students, youths,

persons with disabilities and seniors. In Recommendations 7, 8, 12 and 13, the Task Force proposed concepts that will help RTAs improve and expand the services provided to these key transit riders.

Comments: In particular, several commenters voiced their concern regarding the lack of attention to the youth population.

Response: While not mentioned specifically in the report, the Task Force agrees that attention should be paid to the youth population, and that this point fits well with the idea of travel training. MassDOT promotes the use of travel training for seniors and would be happy to discuss with the RTA Council the possibility of extending this concept to youths. The Task Force would also suggest that the RTA Council be used as a forum to discuss the specific needs of the youth population and other populations that might not naturally think about public transit as an option.

Comments: Many written comments emphasized the importance of public transportation as a way for residents to meet basic needs, such as travel to medical services, pharmacies, grocery stores, banks, libraries, town halls or post offices. Other commentators suggested that RTAs should add routes that service food pantries, courts, jails and other human service related locations.

Response: The Task Force agrees that, for many Massachusetts residents, public transportation serves as an important link to basic needs and strongly encourages the RTAs to have service networks that provide riders with access to common points of interest. In Recommendation 7, the Task Force supports the RTAs use of continually updated CRTPs to ensure that the mobility needs of riders are being met.

Comments: Many riders use transit service as a means to get to work or to school. Many commentators suggested that college focused services are important, especially in the evenings, as well as hours that match employment shifts. One speaker lamented at the fact that, due to limited weekend service, he could not accept weekend shifts at the local Walmart that pay time-and-a-half wages. Other commentators added that public transportation also supports fair housing goals, and provides those who live at or below the poverty level with the means to get to work, to childcare and to medical appointments.

Response: The Task Force also agrees that public transportation plays an important role in workforce transportation, as well as providing access to education and medical appointments. The Task Force encourages the RTAs to form partnerships with local employers, colleges and universities and health care systems, and to work with these employers to understand when transportation is needed for their employees. In addition, Recommendations 7, 9 and 17 outline the need for continued partnerships and involvement with the local business community and education systems to better understand when and where residents are traveling.

Comments: It was also suggested by several commentators that RTAs be encouraged to go beyond ADA requirements to meet the needs of their paratransit riders, and to also provide

seniors who wish to age in place with a reliable means to get to medical appointments and social activities.

Response: The Task Force believes that the paratransit/on-demand service model is an important feature of RTA networks and applauds any RTA that provides services beyond the minimum ADA requirements. The Task Force also suggests that the RTA Council be used as a forum to discuss the use of technology that could make paratransit more useful and responsive. Additionally, Recommendation 13 focuses on procedures for providing reliable paratransit services.

Comments: Commentators at the public meetings and in writing cautioned about increasing fares, and many called for transportation to be kept affordable for everyone. Commentators were particularly concerned for vulnerable populations, such as persons with disabilities, seniors, youths, low-income individuals, and working single parents.

Response: The Task Force agrees that fare equity is a critical goal that RTAs must achieve while maximizing fare revenue for their systems in order to provide consistently affordable transportation. In Recommendations 14, 15 and 16, the Task Force provided valuable measures that RTAs can use to achieve these goals, including the use of fare equity analyses performed at regular intervals.

Comments: There were also comments contrasting the impacts of small/frequent fare adjustments to larger adjustments.

Response: The Task Force agrees that it is important that RTAs adopt a fare policy that encourages smaller increases at regular intervals and avoids the need for larger, more disruptive increases.

Comments: Two written submissions encouraged the use of and experimentation with fare-free services, such as the Five Colleges/UMass Transit model (paid up-front by the community served and through student fees).

Response: The Task Force concurs that the RTAs and their Advisory Boards should carefully consider all options regarding fare structures. MassDOT has long supported the idea of the “UPass” for the Massachusetts student population and would be happy to further discuss the idea at a future RTA Council meeting.

Comments: Several commentators also voiced their support for innovation and creative thinking by the RTAs when it comes to securing additional revenues, such as the maximization of NTD miles.

Response: The Task Force strongly encourages “out-of-the-box” thinking when it comes to maximizing revenue streams, and is supportive of the practice of maximizing reported NTD miles. Additional methods of revenue maximization are discussed in Recommendation 14.

Comments: Many commentators believe that RTAs need a fully integrated fare structure or system that is consistent across all public transportation in the Commonwealth, and agree that a move to a new fare collection system or other system-wide changes be aided by MassDOT.

Response: The Task Force supports the idea of a fully integrated fare system, such as the adoption of the MBTA's AFC 2.0 system by the RTAs as indicated in Recommendation 16. The Task Force also suggests that this discussion be continued by the RTA Council, which has both RTA and MBTA membership. The RTA Council would serve as an excellent statewide forum to plan for the implementation of the AFC 2.0 system across the Commonwealth and to ensure that the RTAs are kept up to date on the MBTA's deployment schedule.

Comments: A few commentators voiced their support for greater involvement by MassDOT and the RTAs in the MEPA process. It was suggested that there be more "teeth" to this process, and that MassDOT should work with RPAs to develop guidelines for municipalities to notify RTAs on potential local development projects.

Response: The Task Force agrees that collaboration between the RTAs and MassDOT is vital to bringing RTA suggestions into the MEPA Review Process and to improving the likelihood that those suggestions will be incorporated into the Commonwealth permitting findings. Recommendation 17 outlines a new process for MEPA review involving RTAs and MassDOT's OTP to improve transit involvement in the development process.

Quality of Service

Summary Themes:

Comments: Many commentators supported the Task Force view that community outreach and rider input at all levels is key to the success of an RTA. Good customer relations and customer satisfaction strategies will help an RTA better understand the needs of their riders. Many commentators expressed their belief that better engagement and community participation in all levels of the transportation conversation can help RTAs break down barriers and increase ridership.

Response: The Task Force clearly shares and appreciates the public's feedback on the importance of customer input. That customer input is an extremely valuable resource that can act as an indicator of changes that the RTA should consider and as a way to improve the quality of service provided by an RTA. Recommendation 22 addressed these observations by advocating for the inclusion of the public in the RTA local decision-making process through the invitation of public comment for new construction projects and service changes.

Comments: Commentators applauded several RTAs for their friendly, pleasant, helpful and accommodating bus and van drivers, and the positive impact this approach has on riders. This was especially noted for dial-a-ride and paratransit services. Many speakers and writers offered

heartfelt endorsements of the service that they received from their RTA and complemented the RTA's leadership for being responsive, innovative, and forward looking.

Response: The Task Force also applauds these RTAs for their excellent customer service and strongly encourages such practices to continue.

Comments: Several commentators supported the use of consistent and user-friendly websites for all RTAs, as they found that this could be very helpful in getting around across the state. One commentator suggested that the newly reinvigorated RTA Council have its own website to post meeting agendas, meeting minutes, reports, presentations, etc. so members of the public can follow and participate in the work of the Council. Several commentators cautioned on the use of the internet as the sole source of information, as broadband internet and cell phone service is not widespread in certain areas of Western MA. Additionally, some commentators cautioned that RTAs should accommodate the languages that are spoken within their respective geographies.

Response: The Task Force supports the idea that the RTA Council should create a website and suggest that it will be discussed at a future RTA Council Meeting. The Task Force also recognizes that RTAs must have robust social media footprints, and standardized, accessible and easy to use websites to improve service to existing riders and attract new users. In Recommendations 20 and 21, the Task Force reiterated the importance of these strategies and provided some implementation ideas.

Environmental Sustainability

Summary Themes:

Comments: Many commentators believe that bus ridership is the key to reducing the consumption of fossil fuels and the creation of greenhouse gas emissions, in order to increase the overall environmental sustainability of the Commonwealth. The report's goal to reduce greenhouse gas emissions was applauded by many.

Response: Consistent with the Commission on the Future of Transportation Report, the Task Force firmly agrees that the transportation sector plays a key role in helping the Commonwealth meet the emissions reductions goals of the Global Warming Solutions Act. In Recommendations 23, the Task Force reiterated the need to identify the mode shift that will be required to meet the Commonwealth's goal of reducing greenhouse gas emissions from the transportation sector by at least 40 percent by 2040.

Comments: There were several comments that supported the use of electric buses over diesel buses, due to their benefit to the environment and to local air quality. One commentator cautioned that, during the winter, electric buses are slow to warm up, which can cause delays. Several other commentators hoped that fleet electrification needs to occur faster than indicated in the report, with a goal of all-electric acquisition/operating by 2025/2030 rather than

2035/2040. Most commentators recognized that fleet electrification should be supported by additional funding.

Response: The Task Force also appreciates the comments supporting the rapid electrification of RTA fleets, and the importance of increasing bus ridership to achieve a modal shift to reduce greenhouse gas emissions. In Recommendation 24, the Task Force outlines the goal of having all public transit bus purchases be zero-emissions by 2035. The Task Force also suggests the use of the RTA Council as a forum for discussion of the feasibility of completing this goal in a more timely fashion.

Other

In addition to comments on the five key topics, other comments were received at both the public meetings and by email. Summary themes of these comments are as follows:

Comments: Several commentators suggested additional performance targets to be considered. These suggestions included:

- Service to food pantries, supermarkets, community health centers, hospitals, community colleges, libraries, senior centers, courts, jails and other human service related locations
- Progress of the RTAs towards meeting the recommendations and goals outlined by the Task Force's report should be tracked and transparently reported to the public via a website
 - Desire for report to become a living online document
- Progress of the RTAs towards meeting the Commonwealth's emissions reduction goals and transition to a zero-emission fleet
- Ridership to employment/services with relevance for economic development
 - Passenger trips to or from work locations

Response: The Task Force appreciates these suggestions and suggests that MassDOT and the RTAs raise them for discussion at a future RTA Council Meeting.

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Public Comment Participants:

Michael Suprenaut, Sturbridge Board of Selectman, WRTA Advisory Board

James Williams, self-advocate

Joe Bellil, Easter Seals

Andrea Freeman, MA Public Health Association and Co-Chair of the RTA Advocates Coalition

Adam Thielker, Worcester Resident

Mark Binnall, WRTA Advisory Board

Paul Chenard, Old Colon Planning Council

Sharon Strzalkowski

Robert Bilotta, Chair of the Worcester Commission on Disability

Brenna Robenson, Worcester Rider Advocacy Coalition

Judi Kirk, Youth Consortium

Keith Scott, WRTA bus rider

Andrea Rodriguez, Co-Chair of the RTA Advocates Coalition

Paul Matthews, 495/MetroWest Partnership

Jo Hart, Worcester resident

Mark Ells, Barnstable Town Manager, CCRTA Advisory Board

Susan Moran, Falmouth Board of Selectman

Rep. Will Crocker

Monica Mullin, Sen. deMacedo's Office

Tom Guerino, Bourne Town Administrator, CCRTA Advisory Board Chair

Alan Slovel, Wareham Board of Selectman

Cheryl Gayle, Director of Elder Services, Community Connections Inc. (CCI)

Mark Rozum, Steamship Authority

Henry Ramage, bus rider and CCRTA employee

Cheryl Magee, CCRTA bus driver

Paula Mackenzie, Bourne resident

Roy E. Jones III, Brewster resident

Cynthia Klopfer, Capeabilities

Nancy Rehkampf, East Falmouth resident

Cynthia Stead, senior advocate

John Kennedy, General Manager, MV Transportation

Marty Reilly, Hy-Line Cruises

Steven Tupper, Cape Cod Commission

Chris Adams, Cape Cod Chamber of Commerce

Vaira Harik, Barnstable County Department of Human Services

Jennifer Davoli, Hyannis resident
Stephen Buckley, Chatham resident
Cathy Taylor, CORD, disability advocate
Paula Leary, NRTA Administrator
Laura McKean, Cape Cod National Seashore
Josh Ostroff, T4MA
Dave Schropfer, N. Eastham resident, CCRTA Advisory Board
Maddie Noonan, Barnstable Senior Care, COA director
Susan Marancik, Sandwich COA
Mayor David Narkewicz, Northampton, PVTA Advisory Board Chairman
Rep. Mindy Domb
Rep. Natalie Blais
Rep. Lindsay Sabadosa
Elena Cohen, Sen. Commerford's Office
Evan Ross, Amherst Town Council
L.H. Fritz, Leyden Board of Selectman
Tina Cote, FRTA Administrator
Bob Malnati, BRTA Administrator
Tony Bass, VP of Mass. Senior Action Council in Springfield
Samantha Hamilton, Public Health Institute of Western MA
Sarita Hudson, Public Health Institute of Western MA
Jeff Singleton, Turner Falls, FRTA Advisory Board
Carol Letson, Greenfield resident
Robert Kearns, UMass Student Government
Tim Brennan, Pioneer Valley Planning Commission
Kevin Kennedy, Five Colleges Consortium
Kevin McCaffery, Mt. Holyoke College
Shane Conklin, UMass Transit
Rob Kusner, UMass Professor
Shelia Cuddy, Executive Director of the Quaboag Valley CDC
Carmen Rosado, Stavros Center
Paul Burns, Work Opportunity

Public Meeting Attendees:

David Lee, First Transit
Steve McClure, Tasks for Transit
Todd Fontanella, CMRPC
Constance Mellis, CMRPC
Heather-Lyn Haley, UMass Med School
Steve Stolberg, CLW
Noelle Balutis, CLW
Lynn Norris, WCCC
Cyrus Menlem, T6
Mike Kennedy, Center for Living and Working

Keith Scott
Jonathan Church, McMahon Associates
Matt Casale, MASSPIRG
Tim Wood, Berkshire Bank
Diane Shea, WRTA
Dennis Lipka, WRTA Administrator
Casey Burns, Coalition Healthy Greater Worcester
Delilue Mern, MASS Advocates
Sue Moriarty, MASS Advocates
Kelsey Hopkins, WDPH
Penelope Karambinakes, WDPH
Jack Spence, Transportation Working Group
Ensol D. Tomassini Morales
Delores Joaquim
Matt Pottelle
Sheila Fluen
Dottie Smith, Office of State Rep. Sarah K. Peake
Joe Krajewski, CCI
Ashley Hope, CORD
Jim Wolf, Cape Air
Elizabeth Wueban, HMS BID
Angela Constantino, SRPEDD
Paul Doherty, UMass
Deanna Miranda, Rep. Domb's Office
Ryan Peterson, UMass
Jenna Howard, Franklin Transit Manager
William Garner, UMass
Christina Maxwell, Food Bank of Western MA
Jeff Lee, Amherst resident
Yudong Lu, UMass
Clare Higgins, Community Action Council of Pioneer Valley
Samantha Hamilton, Live Well Springfield
Eve Vogel, Amherst resident
Stuart Beckley, Town of Ware
Edie Heinemann, Greening Greenfield
Ben Heckscher, Train in the Valley
Abigail Charpentier, Daily Collegian
Nicole Rohan, PVTA
Michelle Holmgren, Baystate Health
Michael Perrault, FRTA
Alex Forrest, PVPC
Price Armstrong, PVTA
Nick Menz, UMass
Doug Roscoe, PVPC

Megan Rhodes, FRCOG
Jonathan McHatton, PVTA
Patricia OLeary, PVTA
Rudy Ferndiz, UMass
Douglas Farmer
Faith Duffy, UMass
Jeremy Shoheit, UMass
Sadie Hudson, PHIWM
Lynn Howe, PVTA
Patrick Beaudry, PVPC
Ben Hood, Citizens for Palmer Rail
Doug Slaughter, PVTA Advisory Board
Laura Britton, Rep. Sabadosa's Office

Written Submissions:

June Fleischmann, Attleboro Health Department Outreach Worker
MA Assoc. of Regional Planning Agencies (MARPA) on behalf of the 13 RPAs
Tracy Opalinski, Ware Business & Civic Association
cs
Jennifer, Lee, Stavros Center
Tory Dixon, Stavros Center
Dr. Paula J. Sperry
Lee Edwards
Robert Kusner, UMass
Bob Malnati, BRTA Administrator
Megan Rhodes, Franklin Regional Council of Governments
Carol Letson, Transportation Justice of Franklin County
Doug Slaughter, PVTA Advisory Board Member
Paige Duncan, Town of Foxborough
Teri Anderson, MassHire Franklin Hampshire Career Center
Sharna Small-Borsellino, EHS
Madeleine Harvey, Acton Commission on Disabilities
Rep. Mathew Muratore
Bill Rose, So. Yarmouth resident
Theresa Nicholson, Director Housing and Shelter, CHD
Clete Kus, Berkshire Regional Planning Commission
Robert Armenti, Westhampton resident
Lauren Voyer, Wayfinders
Frank Gay, GATRA
Carrie Morrison Penland, UMass Employee
Peter d'Errico, Leverett Selectboard Member
Rep. Shaunna O'Connell
Alan Dallmann, the Food Bank of Western Massachusetts
William Abrashkin, Franklin County Regional Housing & Redevelopment Authority

Kevin McCaffrey, Mount Holyoke College
Ben Heckscher, resident of Hatfield
Tina Cote, FRTA Administrator
Michael Moran, Baystate Health Eastern Region
Liam Monahan, 495/MetroWest Partnership
Rep. Jay Barrows
Sonia Paulino
Pamela Schwartz, Western Massachusetts Network to End Homelessness
Sherry Morgan
Rep. Mindy Domb
Ed Cutting, CDL with bus endorsement
Travis Pollack, Metropolitan Area Planning Council (MAPC)
Lloyd Mendes, resident of Somerset
Angie Constantino, SPREDD
Rep. Jim Hawkins
Franny Osman, LRTA Advisory Board