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MetroWest Regional Transit Authority

Transit Asset Management (TAM) Plan

Revised 12/2022



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Introduction

About MWRTA

MetroWest Regional Transit Authority (MWRTA) is a public transit agency based in the MetroWest Region of Massachusetts and is currently comprised of the following 16 member communities: Ashland, Dover, Framingham, Holliston, Hopedale, Hopkinton, Hudson, Marlborough, Milford, Natick, Sherborn, Southborough, Sudbury, Wayland, Wellesley, and Weston. The MWRTA provides public bus transportation services on 15 Fixed Routes and 6 area Shuttle Routes, Microtransit services, and a variety of Paratransit (both ADA and Dial A Ride) Services. The Authority has partnered to provide service vehicles for area nonprofits, Councils On Aging (COA's), Employment Options, Framingham State University, and South Middlesex Opportunity Council (SMOC).



TAM Vision

Ensure that transportation investment decisions, for long-term planning and short-term funding, are oriented toward meeting established goals.

TAM and SGR Policy

MWRTA TAM Policy: The practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles to provide safe, cost-effective, and reliable public transportation.

TAM Goals and/or Objectives

As a member of the Boston MPO, MWRTA is focused on fulfilling the goals developed under the Charting Progress to 2040¹ long range transportation plan for the Boston region. Goals are as follows:

1.Safety:	Transportation by all modes will be safe
2.System Preservation:	Maintain the transportation system

¹ <http://www.ctps.org/lrtp>

3.Capacity Management/Mobility	Use existing facility capacity more efficiently
	increase healthy transportation capacity
4.Clean Air/Clean Communities	Create an environmentally friendly transportation system
5.Transportation Equity	Provide comparable transportation access
	Service quality among communities, regardless of income level or minority population
6.Economic Vitality	Ensure our transportation network provides a strong foundation for economic vitality

Performance Targets and Measures

MWRTA utilizes MassDOT Useful life benchmarks for vehicles received under the mobility assistance program. MWRTA targets are as follows:

Asset Category - Performance Measure	Asset Class	2023 Target
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	<i>AB - Articulated Bus</i>	
	<i>AO - Automobile</i>	100%
	<i>BR - Over-the-road Bus</i>	
	<i>BU - Bus</i>	
	<i>CU - Cutaway Bus</i>	25%
	<i>DB - Double Decked Bus</i>	
	<i>FB - Ferryboat</i>	
	<i>MB - Mini-bus</i>	
	<i>MV - Mini-van</i>	
	<i>RT - Rubber-tire Vintage Trolley</i>	
	<i>SB - School Bus</i>	
	<i>SV - Sport Utility Vehicle</i>	
<i>TB - Trolleybus</i>		

	<i>VN – Van</i>	0%
	<i>Custom 1</i>	
	<i>Custom 2</i>	
	<i>Custom 3</i>	
Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	<i>Non Revenue/Service Automobile</i>	50%
	<i>Steel Wheel Vehicles</i>	
	<i>Trucks and other Rubber Tire Vehicles</i>	
	<i>Custom 1</i>	
	<i>Custom 2</i>	
	<i>Custom 3</i>	
Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	<i>Administration</i>	
	<i>Maintenance</i>	
	<i>Parking Structures</i>	
	<i>Passenger Facilities</i>	
	<i>Custom 1</i>	0%
	<i>Custom 2</i>	
	<i>Custom 3</i>	

Target Methodology:

MWRTA strives to have all vehicles and facilities in useful life and to maintain State of Good Repair. For non-revenue vehicles MWRTA takes into account usability of our existing assets in addition to the useful life benchmarks (ULB) established by FTA.

Roles and Responsibilities

Department/Individual	Role (Title and/or Description)
Jane Doe	Director of Asset Management
Eva Willens	Deputy Administrator
Daniel Fitch	Information Technology
Joy Glynn	Grants Manager

Capital Asset Inventory

As a requirement for the TAM Plan, MWRTA has collected an asset register for assets in the following categories: Revenue Vehicles, Equipment, and Facilities. The Executive Summary of conditions is found below, while the full listing of assets can be found in Appendix A.

Asset Category/Class	Total Number	Avg Age	Avg Mileage	Avg Value
Revenue Vehicles	113	5.0	78,961	\$67,387.50
<i>AB - Articulated Bus</i>	0	-	-	-
<i>AO - Automobile</i>	2	6.0	52,115	\$52,539.00
<i>BR - Over-the-road Bus</i>	0	-	-	-
<i>BU - Bus</i>	0	-	-	-
<i>CU - Cutaway Bus</i>	108	5.0	81,680	\$68,655.68
<i>DB - Double Decked Bus</i>	0	-	-	-
<i>FB - Ferryboat</i>	0	-	-	-
<i>MB - Mini-bus</i>	0	-	-	-
<i>MV - Mini-van</i>	0	-	-	-
<i>RT - Rubber-tire Vintage Trolley</i>	0	-	-	-
<i>SB - School Bus</i>	0	-	-	-
<i>SV - Sport Utility Vehicle</i>	0	-	-	-
<i>TB - Trolleybus</i>	0	-	-	-
<i>VN - Van</i>	3	3.0	45,984	\$54,336.00
<i>Custom 1</i>	0	-	-	-
<i>Custom 2</i>	0	-	-	-
<i>Custom 3</i>	0	-	-	-
Equipment	11	8.7	47,731	\$57,995.45

<i>Non Revenue/Service Automobile</i>	1	7.0	19,640	\$20,000.00
<i>Steel Wheel Vehicles</i>	0	-	-	-
<i>Trucks and other Rubber Tire Vehicles</i>	10	8.9	50,540	\$61,795.00
<i>Custom 1</i>	0	-	-	-
<i>Custom 2</i>	0	-	-	-
<i>Custom 3</i>	0	-	-	-
Facilities	1	10.0	N/A	\$19,765,239.00
<i>Administration</i>	0	-	N/A	-
<i>Maintenance</i>	0	-	N/A	-
<i>Parking Structures</i>	0	-	N/A	-
<i>Passenger Facilities</i>	0	-	N/A	-
<i>Custom 1</i>	1	10.0	N/A	\$19,765,239.00
<i>Custom 2</i>	0	-	N/A	-
<i>Custom 3</i>	0	-	N/A	-

Condition Assessment

As a requirement for the TAM Plan, MWRTA has conducted a condition assessment for assets in the following categories: Revenue Vehicles, Equipment, and Facilities.

MWRTA followed FTA best practices and TERM score guidance in determining Facility Condition and utilized assigned ULB to determine the state of the fleet. The

Executive Summary of conditions is found below, while the full listing of assets can be found in Appendix B.

Asset Category/Class	Count	Avg Age	Avg Mileage	Avg TERM Condition	Avg Value	% At or Past ULB
Revenue Vehicles	113	5.0	78,961	N/A	\$67,387.50	8.85%
<i>AB - Articulated Bus</i>	0	-	-	N/A	-	-
<i>AO - Automobile</i>	2	6.0	52,115	N/A	\$52,539.00	50.00%
<i>BR - Over-the-road Bus</i>	0	-	-	N/A	-	-
<i>BU - Bus</i>	0	-	-	N/A	-	-
<i>CU - Cutaway Bus</i>	108	5.0	81,680	N/A	\$68,655.68	8.33%
<i>DB - Double Decked Bus</i>	0	-	-	N/A	-	-
<i>FB - Ferryboat</i>	0	-	-	N/A	-	-
<i>MB - Mini-bus</i>	0	-	-	N/A	-	-
<i>MV - Mini-van</i>	0	-	-	N/A	-	-
<i>RT - Rubber-tire Vintage Trolley</i>	0	-	-	N/A	-	-
<i>SB - School Bus</i>	0	-	-	N/A	-	-
<i>SV - Sport Utility Vehicle</i>	0	-	-	N/A	-	-
<i>TB - Trolleybus</i>	0	-	-	N/A	-	-
<i>VN - Van</i>	3	3.0	45,984	N/A	\$54,336.00	0.00%
<i>Custom 1</i>	0	-	-	N/A	-	-
<i>Custom 2</i>	0	-	-	N/A	-	-
<i>Custom 3</i>	0	-	-	N/A	-	-
Equipment	11	8.7	47,731	N/A	\$57,995.45	36.36%
<i>Non Revenue/Service Automobile</i>	1	7.0	19,640	N/A	\$20,000.00	0.00%
<i>Steel Wheel Vehicles</i>	0	-	-	N/A	-	-
<i>Trucks and other Rubber Tire Vehicles</i>	10	8.9	50,540	N/A	\$61,795.00	40.00%
<i>Custom 1</i>	0	-	-	N/A	-	-
<i>Custom 2</i>	0	-	-	N/A	-	-
<i>Custom 3</i>	0	-	-	N/A	-	-
Facilities	1	10.0	N/A	3.0	\$19,765,239.00	N/A
<i>Administration</i>	0	-	N/A	-	-	N/A
<i>Maintenance</i>	0	-	N/A	-	-	N/A
<i>Parking Structures</i>	0	-	N/A	-	-	N/A
<i>Passenger Facilities</i>	0	-	N/A	-	-	N/A
<i>Custom 1</i>	1	10.0	N/A	3.0	\$19,765,239.00	N/A
<i>Custom 2</i>	0	-	N/A	-	-	N/A
<i>Custom 3</i>	0	-	N/A	-	-	N/A



Decision Support

Tools

The following processes and tools are in place to support investment decision making, including project selection and prioritization for MWRTA. MWRTA works with the Massachusetts Department of Transportation (MassDOT) and the Boston Area MPO to assist in determining priority levels for MWRTA projects as they fit into the region and state priorities and work closely with these organizations in developing regional and statewide plans.

Process/Tool	Brief Description
5 Year Capital Investment Plan (CIP)	Work along with MassDOT to secure funding for asset maintenance and replacement; set prioritization factors/indicators; assign scoring definitions and weights; determine prioritization index score.
Revenue Asset Data Base	SQL database tracking key data elements regarding asset inventory.
Facilities Maintenance Reports	MWRTA uses FTA published tools and guidance to maintain SGR for the facility; Administration and Facilities Director perform regular inspections of the facility and document deficiencies found and improvements/corrections made.
Vehicle Maintenance Management Tool	MWRTA uses Fleetio Software to track maintenance activities performed on each vehicle.

Investment Prioritization

Based on MWRTA financial resources, the MWRTA ranks capital projects or programs in order of priority and anticipated project year to maintain SGR. MWRTA gives consideration to SGR projects that pose an identified unacceptable safety risk. Estimation of funding levels from all available sources are taken into consideration for the investments the agency has direct capital responsibility for. Maintenance of accessible features and requirements concerning alteration of transportation facilities under 49 CFR 37 Transportation Services for Individuals with Disabilities (ADA).

Risk Management

The following risks have been identified by the organization, along with mitigation strategies to overcome these risks

Risk	Mitigation Strategy
Safety	MWRTA values the need and understands the significance of risk management within its daily operations, and all associated potential risk liabilities. The safety of its employees, contractors, visitors, passengers and property are of the utmost importance. The Deputy Administrator has oversight of potential risk liability and is charged with identifying where the potential risk may be represented. All managers/supervisors are responsible for reporting to the Deputy Administrator any source of potential risk they may recognize in their respective departments and beyond.
Areas of potential risk	MWRTA's risk management policies and procedures encompass reviews of actual or potential areas of risk and or liability of employees, contractors, visitors, passengers, property loss or damages and other sources of legal liability. Annual meetings are scheduled with the Authority's insurance carrier to assess and discuss areas in which risk is either occurring or could possibly occur. This coordinated effort includes the Authority's insurance agent who acts as a liaison on the Authority's behalf to ensure that while necessary coverages and policies are adhered to, the Authority is not over burdened with unnecessary or unrealistic costs of coverage.
Liability	MWRTA relies on the professional advice of their contracted insurance agent, the insurance carrier and the experience of the Deputy Administrator in the assessment of procuring liability coverage insurance as well as other prudent and mandated coverages.
Workplace Issues	MWRTA participates and procures training programs (when necessary) for its employees in the areas of risk, including, but not limited to, falls, workplace hazards, workplace violence, diversity, fire drills and active shooter training and includes in all its contracts with service providers, mandated driver training, customer service and diversity training.
Vehicles Accidents	Vehicle incidents may have an impact on our spare ratio
Vehicle Maintenance	Scheduling of vehicle maintenance is coordinated by the Vehicle Maintenance Director to minimize impact on vehicle downtime
Facilities Maintenance	Scheduling of facilities maintenance is coordinated by the Facilities Maintenance Director to minimize impact on MWRTA operations downtime
Loss of federal funds	Facilities Maintenance, Vehicle Maintenance, Safety and Security Systems of federally funded assets depend on federal funds for capital

Maintenance Strategy

MWRTA values existing capital resources and investments into the agency and understands the importance of maintaining these resources to ensure use to and exceeding the useful life of the asset. The following are regularly planned maintenance activities completed by the organization. In addition to the activities listed, MWRTA maintains a comprehensive Facility Maintenance Log documenting all facility repairs and enhancements along with comprehensive vehicle repair records.

Asset Category	Asset Class	Maintenance Activity	Frequency	Avg Duration (Hrs)	Cost
RevenueVehicles	CU - Cutaway Bus	Oil Change	4500-5500 miles	2.5 hours	\$188
RevenueVehicles	CU - Cutaway Bus	Brakes	15,000	3 hours	\$225
RevenueVehicles	CU - Cutaway Bus	Tires	20,000	1 hour (4 tires)	\$75
RevenueVehicles	CU - Cutaway Bus	Front End Suspension	40,000	5 hours	\$375
RevenueVehicles	CU - Cutaway Bus	Front End Alignment	Annual	1.2 hours	\$90
Facilities	Custom 1	Generator	Semi Annual	4 hours	\$2,000
Facilities	Custom 1	Boiler	Semi Annual	4 hours	\$2,000
Facilities	Custom 1	Fire Alarm / Security	Monthly	4 hours	\$300
Facilities	Custom 1	Elevator w/Phone Monitoring	Monthly	1 hour	\$3,000
Facilities	Custom 1	Waste Removal	Weekly	1 hour	\$175
RevenueVehicles	AO- Automobile	Oil Change	4500-5500 miles	2.5 hours	\$188
RevenueVehicles	AO- Automobile	Brakes	15,000	3 hours	\$225
RevenueVehicles	AO- Automobile	Tires	20,000	1 hour (4 tires)	\$75
RevenueVehicles	AO- Automobile	Front End Suspension	40,000	5 hours	\$375
RevenueVehicles	AO- Automobile	Front End Alignment	Annual	1.2 hours	\$90
Equipment	Trucks and other Rubber Tire Vehicles	Oil Change	4500-5500 miles	2.5 hours	\$188
Equipment	Trucks and other Rubber Tire Vehicles	Brakes	15,000	3 hours	\$225
Equipment	Trucks and other Rubber Tire Vehicles	Tires	20,000	1 hour (4 tires)	\$75
Equipment	Trucks and other Rubber Tire Vehicles	Front End Suspension	40,000	5 hours	\$375
Equipment	Trucks and other Rubber Tire Vehicles	Front End Alignment	Annual	1.2 hours	\$90

Unplanned Maintenance Needs

MWRTA Facilities Director would review unplanned maintenance needs with Administrator and Deputy to discuss various repair options and costs.

Overhaul Strategy

Asset Category	Asset Class	Overhaul Strategy
RevenueVehicles	CU - Cutaway Bus	No Overhaul Strategy. Vehicles are replaced at end of useful life.
RevenueVehicles	VN - Van	No Overhaul Strategy. Vehicles are replaced at end of useful life.
Facilities	Custom 1	Continuous investments are made as part of MWRTA's capital plan to maintain state of good repair and make improvements where necessary.

Disposal Strategy

Asset Category	Asset Class	Disposal Strategy
RevenueVehicles	CU - Cutaway Bus	MWRTA rotates the fleet to be in compliance with State of Good Repair (SOGR); Administrator receives request for surplus; FTA approval is required for disposition of vehicles with a FMV over \$5,000.
RevenueVehicles	VN - Van	MWRTA rotates the fleet to be in compliance with State of Good Repair (SOGR); Administrator receives request for surplus; FTA approval is required for disposition of vehicles with a FMV over \$5,000.
Facilities	Custom 1	MWRTA does not anticipate a need to dispose of facility in the foreseeable future, given the current age and useful life remaining.

Acquisition and Renewal Strategy

Asset Category	Asset Class	Acquisition and Renewal Strategy
RevenueVehicles	CU - Cutaway Bus	MWRTA aims to replace 1/5 of the fleet per year so that there is a 5 year fleet turn over and so that we are distributing our replacements equally throughout each year. In an effort to reduced GHG and improve the air quality within the MetroWest Region, MWRTA is in year 2 of a 5 year plan to transition the fleet from gasoline to CNG buses. Our mission at the MWRTA Vehicle Maintenance Facility is to provide the best quality maintenance of all MWRTA vehicle equipment with the least amount of service interruption. All of our vehicle repairs will be of industry standards. We will strive for no road calls, and we will quickly respond to any and all needs of our vehicles and clients.
RevenueVehicles	VN - Van	MWRTA aims to replace 1/5 of the fleet per year so that there is a 5 year fleet turn over and so that we are distributing our replacements equally throughout each year.
Facilities	Custom 1	Public transit requires a considerable investment in buildings, equipment, and machinery. The proper maintenance of facilities, machinery, and equipment is key to protecting the MWRTA investment and prolonging the useful life of the asset. The MWRTA Facilities Director regularly performs inventory and condition assessment of the facility; define service goals; identify critical assets; establish life cycle costs; develop funding strategy. Facilities Manager organizes and assigns responsibility for the MWRTA facility and equipment maintenance. <ul style="list-style-type: none"> • Inspections and routine maintenance is performed regularly to ensure proper care and to maximize useful service life of MWRTA facilities and equipment; • MWRTA maintains adequate permanent records of maintenance and inspection activity for the MWRTA buildings and equipment; • Assets not under warranty are maintained in accordance with manufacturer's recommendations; The facility/equipment maintenance program identifies specific mission critical and safety items.

Investment Prioritization

Proposed Investments

The following projects and programs have been identified for the FY23-FY24 Years. MWRTA constantly reviews investment priorities to ensure that they align with agency objectives and current research in the industry. MWRTA works closely with regional and statewide partners to ensure that projects line up with Regional Transportation Plans and Statewide Transportation Plans, along with MassDOT's Capital Improvement Plan. Please note that for revenue vehicles, vehicles awarded by the state are usually delivered in May or June of the fiscal year, so investments listed for a particular year are for revenue vehicles that will be brought online the following year.

2023	Replacement Vehicles	RevenueVehicles	CU - Cutaway Bus	\$1,226,500	High
2023	Statewide EV Migration	RevenueVehicles	VN- VAN	\$100,000	Medium
2023	Facility State of Good Repair	Facilities	Custom 1	\$425,000	High
2024	Replacement Vehicles	RevenueVehicles	CU- Cutaway Bus	\$1,081,037	High
2024	Statewide EV Migration	RevenueVehicles	VN -VAN	\$400,000	High
2024	Facility State of Good Repair	Facilities	Custom 1	\$500,000	High

Fleet Electrification

As demonstrated by the above investment priorities, MWRTA is committed to electrifying a portion of its fleet year over year. The agency has determined that initial investments in electrified fleet may be better focused on the paratransit fleet for many reasons. Given that it is appropriate to select a smaller vehicle for paratransit services due to maximum hourly per passenger efficiency, cost barriers are much lower to be able to obtain vehicles as well as required electric output to operate the vehicle will be lower. MWRTA will also have more control in route selection to ensure that vehicles do not exceed range capacities. In addition, maintenance investments required to procure the tools and equipment necessary to work on said vehicles are much less expensive for smaller van sized vehicles. MWRTA is focusing investments in the upcoming five year plan to gradually electrify its paratransit fleet. Funding for these projects are in addition to the funds allocated for traditionally replacing the vehicles with gas powered equivalents.

Capital Investment Activity Schedules.

The following documents provide comprehensive work plans and schedules relating to MWRTA Capital Investment Plan and are included as attachments to this document.

Document Name	File Extension
MassDOT CIP FY23-FY27	PDF
Boston MPO TIP FY23-FY27	PDF
MWRTA CIP FY23-FY27	PDF

Fleet Replacement Module

<u>Total in Current Year \$</u>	\$1,457,044.00	\$413,230.00	\$1,002,195.50	\$1,499,052.50	\$1,125,201.00
<u>Inflation Rate</u>	3.0%	3.0%	3.0%	3.0%	3.0%
<u>Compounded Inflation</u>	1.03	1.03	1.03	1.03	1.03
<u>Total in Year of Expenditure \$</u>	\$1,500,755.32	\$425,626.90	\$1,032,261.37	\$1,544,024.08	\$1,158,957.03
	2023	2024	2025	2026	2027

New Fleet

	2023		2024		2025		2026		2027	
Fleet Type (Year/Make/Model)	Number	Cost in 2022 \$	Number	Cost in 2022 \$	Number	Cost in 2022 \$	Number	Cost in 2022 \$	Number	Cost in 2022 \$
2011 STR Starcraft ALLSTAR	3	\$166,200.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2013 SHI Shepard Brothers Inc MetroLite	1	\$55,638.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2014 ELK Elkhart Coach Elkhart	1	\$58,119.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2013 SHI Shepard Brothers Inc Phoenix	1	\$55,638.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2014 SHI Shepard Brothers Inc Phoenix	1	\$56,814.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2016 SHI Shepard Brothers Inc Phoenix	13	\$785,200.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2018 SHI Shepard Brothers Inc Phoenix	0	\$0.00	0	\$0.00	9	\$533,335.50	0	\$0.00	0	\$0.00
2014 ELK Elkhart Coach ECII	3	\$174,357.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2016 MVN-Mobility Ventures MV1	2	\$105,078.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00

2019 FORD Transit	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2019 SHI Shepard Brothers Inc Phoenix	0	\$0.00	0	\$0.00	0	\$0.00	13	\$885,306.50	0	\$0.00
2016 ELK Elkhart Coach ECII	0	\$0.00	2	\$132,620.00	0	\$0.00	0	\$0.00	0	\$0.00
2017 SHI Shepard Brothers Inc Phoenix	0	\$0.00	5	\$280,610.00	0	\$0.00	0	\$0.00	0	\$0.00
2017 STR Starcraft ALLSTAR	0	\$0.00	0	\$0.00	7	\$468,860.00	0	\$0.00	0	\$0.00
2021 SHI Shepard Brothers Inc Phoenix	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2022 SHI Shepard Brothers Inc Phoenix	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2018 NCC National Coach Corp Phoenix	0	\$0.00	0	\$0.00	0	\$0.00	6	\$613,746.00	0	\$0.00
2019 NCC National Coach Corp ECII	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	11	\$1,125,201.00
2021 NCC National Coach Corp ECII	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2022 ELK Elkhart Coach ECII	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00

Appendix A – Asset Register

Asset Category	Asset Class	Asset Name	Make	Model	Count	ID/Serial No.	Asset Owner	Acquisition Year	Vehicle Mileage	Replacement Cost/Value
Equipment	Non Revenue/Service Automobile	Ford Explorer	Ford	Explorer	1	1209	MWRTA	2015	19,640	\$20,000.00
Equipment	Trucks and other Rubber Tire Vehicles	2011 CNG Service Vehicle	Ford	E350	1	25583	MWRTA	2011	110,960	\$75,000.00
Equipment	Trucks and other Rubber Tire Vehicles	2018 Sander	Ford	F550	1	25580	MWRTA	2018	1,279	\$65,000.00
Equipment	Trucks and other Rubber Tire Vehicles	2020 Tow Truck	Freightliner	M2 106	1	25581	MWRTA	2020	2,184	\$134,000.00
Equipment	Trucks and other Rubber Tire Vehicles	2021 John Deere 544P	John Deere	544P	1	29971	MWRTA	2021	2,374	\$179,450.00
Equipment	Trucks and other Rubber Tire Vehicles	2022 SkidSteer	JCB		1	29970	MWRTA	2022	4,564	\$92,000.00
Equipment	Trucks and other Rubber Tire Vehicles	Explorer 06	Ford	Explorer	1	1214	MWRTA	2006	130,836	\$7,500.00
Equipment	Trucks and other Rubber Tire Vehicles	Ford Pickup	Ford	F350	1	1210	MWRTA	2015	11,078	\$30,000.00
Equipment	Trucks and other Rubber Tire Vehicles	Ford Pickup CR	Ford	F250	1	1211	MWRTA	2002	61,000	\$8,000.00
Equipment	Trucks and other Rubber Tire Vehicles	Sander	Ford	F350	1	1213	MWRTA	2005	70,166	\$12,000.00
Equipment	Trucks and other Rubber Tire Vehicles	Utility Truck	Ford	F250	1	1212	MWRTA	2011	110,960	\$15,000.00
Facilities	Custom 1	Blandin Ave Facility			1		MWRTA	2012		\$19,765,239.00
RevenueVehicles	AO - Automobile	MV-1 **MODEL YEAR 2014	MVN- Mobility Ventures	MV1	2	352717	MWRTA	2016	52,115	\$52,539.00

RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	STR Starcraft	ALLSTAR	3	49454	MWRTA	2011	96,040	\$55,400.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	ELK Elkhart Coach	Elkhart	1	341784	MWRTA	2014	99,933	\$58,119.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	ELK Elkhart Coach	ECII	3	352716	MWRTA	2014	71,055	\$58,119.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	2	346715	MWRTA	2016	112,647	\$60,400.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	6	347567	MWRTA	2016	119,252	\$60,400.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	5	346662	MWRTA	2016	84,950	\$60,400.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	6	377903	MWRTA	2018	48,405	\$60,400.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	4	387143	MWRTA	2019	56,607	\$73,696.00
RevenueVehicles	CU - Cutaway Bus	12 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	13	397133	MWRTA	2022	9,155	\$73,696.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	ELK Elkhart Coach	ECII	2	352504	MWRTA	2016	180,432	\$66,310.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	STR Starcraft	ALLSTAR	7	360061	MWRTA	2017	153,157	\$66,980.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	NCC National Coach Corp	Phoenix	6	377985	MWRTA	2018	131,276	\$102,291.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	NCC National Coach Corp	ECII	11	387148	MWRTA	2019	94,450	\$102,291.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	NCC National Coach Corp	ECII	8	392579	MWRTA	2021	35,842	\$102,291.00
RevenueVehicles	CU - Cutaway Bus	16 Passenger Cutaway	ELK Elkhart Coach	ECII	3	397146	MWRTA	2022	10,408	\$102,291.00

RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	MetroLite	1	330885	MWRTA	2013	69,239	\$55,638.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	1	341785	MWRTA	2013	132,306	\$55,638.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	1	341786	MWRTA	2014	70,132	\$56,814.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	5	360057	MWRTA	2017	93,912	\$56,122.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	3	377948	MWRTA	2018	61,625	\$58,119.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	9	387142	MWRTA	2019	44,434	\$62,505.00
RevenueVehicles	CU - Cutaway Bus	8 Passenger Cutaway	SHI Shepard Brothers Inc	Phoenix	8	392578	MWRTA	2021	21,698	\$62,505.00
RevenueVehicles	VN - Van	Ford Transit	FORD	Transit	3	377949	MWRTA	2019	45,984	\$54,336.00

Appendix B1- Revenue Vehicles Condition Assessment

Asset Class	Asset Name	Count	ID/Serial No.	Age (Yrs)	Vehicle Mileage	Replacement Cost/Value	Useful Life Benchmark (Yrs)	Past Useful Life Benchmark
AO - Automobile	MV-1 ***MODEL YEAR 2014	2	352717	6	52,115	\$52,539.00	5	Yes
CU - Cutaway Bus	12 Passenger Cutaway	3	49454	11	96,040	\$55,400.00	5	Yes
CU - Cutaway Bus	12 Passenger Cutaway	1	341784	8	99,933	\$58,119.00	6	Yes
CU - Cutaway Bus	12 Passenger Cutaway	3	352716	8	71,055	\$58,119.00	6	Yes
CU - Cutaway Bus	12 Passenger Cutaway	2	346715	6	112,647	\$60,400.00	6	Yes
CU - Cutaway Bus	12 Passenger Cutaway	6	347567	6	119,252	\$60,400.00	6	Yes
CU - Cutaway Bus	12 Passenger Cutaway	5	346662	6	84,950	\$60,400.00	6	Yes
CU - Cutaway Bus	12 Passenger Cutaway	6	377903	4	48,405	\$60,400.00	6	No
CU - Cutaway Bus	12 Passenger Cutaway	4	387143	3	56,607	\$73,696.00	6	No
CU - Cutaway Bus	12 Passenger Cutaway	13	397133		9,155	\$73,696.00	6	No
CU - Cutaway Bus	16 Passenger Cutaway	2	352504	6	180,432	\$66,310.00	7	No
CU - Cutaway Bus	16 Passenger Cutaway	7	360061	5	153,157	\$66,980.00	7	No
CU - Cutaway Bus	16 Passenger Cutaway	6	377985	4	131,276	\$102,291.00	7	No
CU - Cutaway Bus	16 Passenger Cutaway	11	387148	3	94,450	\$102,291.00	7	No
CU - Cutaway Bus	16 Passenger Cutaway	8	392579	1	35,842	\$102,291.00	7	No
CU - Cutaway Bus	16 Passenger Cutaway	3	397146		10,408	\$102,291.00	7	No
CU - Cutaway Bus	8 Passenger Cutaway	1	330885	9	69,239	\$55,638.00	6	Yes
CU - Cutaway Bus	8 Passenger Cutaway	1	341785	9	132,306	\$55,638.00	6	Yes
CU - Cutaway Bus	8 Passenger Cutaway	1	341786	8	70,132	\$56,814.00	6	Yes
CU - Cutaway Bus	8 Passenger Cutaway	5	360057	5	93,912	\$56,122.00	6	No

CU - Cutaway Bus	8 Passenger Cutaway	3	377948	4	61,625	\$58,119.00	6	No
CU - Cutaway Bus	8 Passenger Cutaway	9	387142	3	44,434	\$62,505.00	6	No
CU - Cutaway Bus	8 Passenger Cutaway	8	392578	1	21,698	\$62,505.00	6	No
VN - Van	Ford Transit	3	377949	3	45,984	\$54,336.00	8	No

Appendix B2- Equipment Condition

Asset Category	Asset Class	Asset Name	Count	ID/Serial No.	Age (Yrs)	Vehicle Mileage	Replacement Cost/Value	Useful Life Benchmark (Yrs)	Past Useful Life Benchmark
Equipment	Non Revenue/Service Automobile	Ford Explorer	1	1209	7	19,640	\$20,000.00	14	No
Equipment	Trucks and other Rubber Tire Vehicles	2011 CNG Service Vehicle	1	25583	11	110,960	\$75,000.00	14	No
Equipment	Trucks and other Rubber Tire Vehicles	2018 Sander	1	25580	4	1,279	\$65,000.00	14	No
Equipment	Trucks and other Rubber Tire Vehicles	2020 Tow Truck	1	25581	2	2,184	\$134,000.00	14	No
Equipment	Trucks and other Rubber Tire Vehicles	2021 John Deere 544P	1	29971	1	2,374	\$179,450.00	10	No
Equipment	Trucks and other Rubber Tire Vehicles	2022 SkidSteer	1	29970		4,564	\$92,000.00	10	No
Equipment	Trucks and other Rubber Tire Vehicles	Explorer 06	1	1214	16	130,836	\$7,500.00	8	Yes
Equipment	Trucks and other Rubber Tire Vehicles	Ford Pickup	1	1210	7	11,078	\$30,000.00	8	No
Equipment	Trucks and other Rubber Tire Vehicles	Ford Pickup CR	1	1211	20	61,000	\$8,000.00	8	Yes
Equipment	Trucks and other Rubber Tire Vehicles	Sander	1	1213	17	70,166	\$12,000.00	8	Yes
Equipment	Trucks and other Rubber Tire Vehicles	Utility Truck	1	1212	11	110,960	\$15,000.00	8	Yes

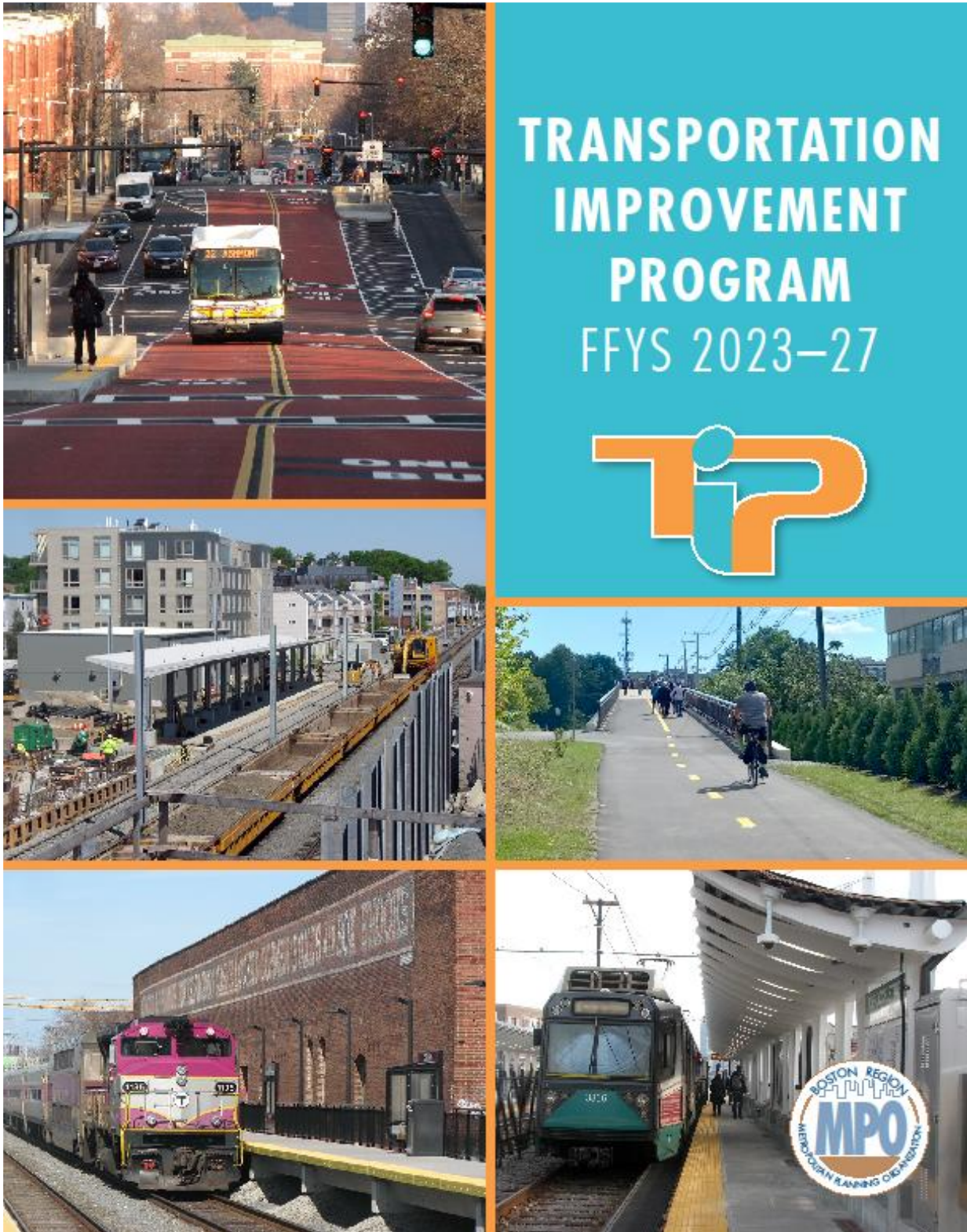
Appendix B3- Facility Condition Assessment

Asset Category	Asset Class	Asset Name	Count	ID/Serial No.	Age (Yrs)	TERM Scale Condition	Replacement Cost/Value
Facilities	Custom 1	Blandin Ave Facility	1		5	4	\$19,765,239.00

Referenced Documents

The documents below are referenced in this document as of the date of this publication.

Boston MPO TIP FFY13- FFY27





Final 2023-2027 Capital Investment Plan June 2022

Table 3-10
FFYs 2023-27 TIP Transit Table (MWRTA)

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap State 100% State	Bond Cap Match Federal Transit Discretionary Grant	Federal FTA Section 5307	Federal FTA Section 5339 Statewide	Federal FTA Transit Discretionary Grant	Operating Additional State Assistance State Contract Assistance	Federal FHWA Transportation Development Credits
FFY 2023													
RTD0011099	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2023	\$2,000,000	\$0	\$0	\$1,600,000	\$0	\$0	\$400,000	\$0
RTD0011100	MWRTA	Transit RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2023	\$150,000	\$30,000	\$0	\$120,000	\$0	\$0	\$0	\$0
RTD0011101	MWRTA	Transit RTA Facility and System Modernization	Technology Support/ Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/ improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2023	\$200,000	\$40,000	\$0	\$160,000	\$0	\$0	\$0	\$0
RTD0011102	MWRTA	Transit RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA."	2023	\$425,000	\$85,000	\$0	\$340,000	\$0	\$0	\$0	\$0
RTD0011108	MWRTA	Transit RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/ improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2023	\$5,000	\$1,000	\$0	\$4,000	\$0	\$0	\$0	\$0
RTD0011113	MWRTA	Transit RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 6 D(b)CNGs + 6 E2s Gas	2023	\$731,500	\$146,300	\$0	\$0	\$0	\$585,200	\$0	\$0
RTD0011127	MWRTA	Transit RTA Facility and Vehicle Maintenance	Back Entrance Project - Discretionary	Enlarge the operations center of dispatch, administration offices, and driver training rooms of revenue service contractor. Installation of HVAC ERU (energy recovery unit).	2023	\$2,000,000	\$0	\$400,000	\$0	\$0	\$1,600,000	\$0	\$0
RTD0011128	MWRTA	Transit RTA Facility and System Modernization	Electronic Sign Board	Install electronic sign boards at high demand locations and enhance accessibility of digital rider tools.	2023	\$200,000	\$40,000	\$0	\$160,000	\$0	\$0	\$0	\$0

3-48 Transportation Improvement Program

(Table 3-10, continued, 2)

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap State 100% State	Bond Cap Match Federal Transit Discretionary Grant	Federal FTA Section 5307	Federal FTA Section 5339 Statewide	Federal FTA Federal Transit Discretionary Grant	Operating Additional State Assistance State Contract Assistance	Federal FHWA Transportation Development Credits
RTD0011129	MWRTA	Transit RTA Facility and System Modernization	CRT North Framingham Bike/Pedestrian Connectivity - Cochituate Rail Trail North Framingham Feasibility Study - Discretionary	Cochituate Rail Trail North Framingham Feasibility Study - Expand bike/pedestrian connectivity and emerging technologies to support last-mile connections.	2023	\$95,000	\$0	\$19,000	\$0	\$0	\$76,000	\$0	\$0
RTD0011122	MWRTA	Transit RTA Fleet Upgrades	2023 Electric Vehicle Migration	Modernization fleet electrification - Vehicle migration - Purchase of 5 paratransit (Type A) electric vehicles. MWRTA is seeking an 8-year migration to fully electric vehicles. This request is supported in MWRTA's TAM to maintain useful life benchmarks of the agency's paratransit fleet and is in support of Gov. Baker's 2020 Transportation Climate Initiative (TCI).	2023	\$100,000	\$20,000	\$0	\$80,000	\$0	\$0	\$0	\$0
RTD0011135	MWRTA	Transit RTA Vehicle Replacement	Vehicle Replacement - Cutaways (12) #2 of 2	FY23 #1 of 2 5339 \$330k + RTACAP \$165k; FY23 #2 of 2 5307 \$330k + RTACAP \$165k for 6 D(b) w/CNG + 6 E2s Gasoline.	2023	\$495,000	\$165,000	\$0	\$330,000	\$0	\$0	\$0	\$0
FFY 2024													
RTD0011103	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2024	\$2,000,000	\$0	\$0	\$1,600,000	\$0	\$0	\$400,000	\$0
RTD0011104	MWRTA	Transit RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2024	\$150,000	\$30,000	\$0	\$120,000	\$0	\$0	\$0	\$0
RTD0011105	MWRTA	Transit RTA Facility and System Modernization	Technology Support/Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2024	\$250,000	\$50,000	\$0	\$200,000	\$0	\$0	\$0	\$0
RTD0011106	MWRTA	Transit RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA."	2024	\$500,000	\$100,000	\$0	\$400,000	\$0	\$0	\$0	\$0

Chapter 3: Summary of Highway and Transit Programming 3-49

(Table 3-10, continued, 3)

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap State 100% State	Bond Cap Match Federal Transit Discretionary Grant	Federal FTA Section 5307	Federal FTA Section 5339 Statewide	Federal FTA Federal Transit Discretionary Grant	Operating Additional State Assistance State Contract Assistance	Federal FHWA Transportation Development Credits
RTD0011107	MWRTA	Transit RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2024	\$5,000	\$1,000	\$0	\$4,000	\$0	\$0	\$0	\$0
RTD0011114	MWRTA	Transit RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 11 D(b) - CNGs + 4 E2s - Gas	2024	\$627,000	\$0	\$125,400	\$0	\$0	\$501,600	\$0	\$0
RTD0011267	MWRTA	Transit RTA Fleet Upgrades	2027 Electric Vehicle (EV) Additional Electrification Costs	Modernization fleet electrification - vehicle migration	2024	\$200,000	\$100,000	\$0	\$100,000	\$0	\$0	\$0	\$0
RTD0011123	MWRTA	Transit RTA Fleet Upgrades	5339 Competitive 2024 Electric Vehicle (EV) Infrastructure - Discretionary	Modernization fleet electrification - Vehicle migration - Purchase of 5 electric vehicles	2024	\$200,000	\$0	\$20,000	\$0	\$0	\$180,000	\$0	\$0
RTD0011130	MWRTA	Transit RTA Facility and System Modernization	FCRS Intermodal Hub - Discretionary	Explore opportunities for Framingham Commuter Rail Station (FCRS) for the expansion of Intermodal transportation opportunities.	2024	\$8,000,000	\$0	\$0	\$0	\$0	\$8,000,000	\$0	\$2,000,000
RTD0011131	MWRTA	Transit RTA Facility and System Modernization	East Street Garage Project - Discretionary	Construct two-story garage with solar PV array rooftop panels.	2024	\$7,000,000	\$0	\$0	\$0	\$0	\$7,000,000	\$0	\$1,750,000
RTD0011132	MWRTA	Transit RTA Facility and Vehicle Maintenance	Body Shop - Discretionary	Procure adjacent property to Blandin Hub and construct in-house body shop for the efficient and cost effective repair of vehicles.	2024	\$3,000,000	\$0	\$0	\$0	\$0	\$3,000,000	\$0	\$750,000
RTD0011136	MWRTA	Transit RTA Vehicle Replacement	Vehicle Replacement - Cutaways (15) #2 of 2	FY24 #1 of 2 5339 \$450k + RTACAP \$225k; FY24 #2 of 2 5307 \$450k + RTACAP \$225k for 11 D(b) w/CNG + 4 E2s - Gasoline.	2024	\$454,037	\$90,807	\$0	\$0	\$363,230	\$0	\$0	\$0