

TRANSIT ASSET MANAGEMENT PLAN

ROLLING STOCK, EQUIPMENT AND FACILITIES

CALENDAR YEAR 2024



WESTERN RESERVE TRANSIT AUTHORITY
FEBRUARY 12, 2024

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BACKGROUND

The Western Reserve Transit Authority (WRTA) primarily serves Mahoning County, Ohio with both fixed route and demand responses services. WRTA utilizes Heavy Duty (HD) 35' low floor fixed route buses, Light Transit Vehicles (LTV) and Modified Mini-Vans (MMV) to provide its revenue services. WRTA operates with two facilities, a Passenger Transfer Station and an Administration/Maintenance facility.

On July 26, 2016 the Federal Transit Administration (FTA) published the final rule on Transit Asset Management (TAM)(49 CFR Part 625). WRTA qualifies as a Tier II provider. A Tier II provider is defined as a provider that owns, operates, or manages 100 or fewer vehicles across all modes or any one non-fixed mode during peak regular service across non-rail, fixed route modes, or is a sub-recipient under the 5311 Rural Area Formula Program or American Indian Tribe. The rule requires targets for transit assets to be developed by January 1, 2017 for the following fiscal year. WRTA's targets deal with three areas of interest/asset categories: Rolling Stock, Equipment and Facilities.

WRTA's Transit Asset Management Plan (TAM Plan) is intended to fulfill the requirements of MAP-21 and the FTA. WRTA monitors FTA guidance and will update this plan as needed. The plan provides direction for WRTA to plan, protect and preserve capital assets for maximum utilization without compromising safety.

ABOUT THE TAM PLAN

The TAM Plan is a comprehensive listing of capital assets and their current condition along with forecasted condition. The TAM Plan describes processes and factors that are considered while maintaining assets in a State of Good Repair (SGR). The TAM Plan projects capital investment priority categories. TAM Plan targets and capital projects are updated annually. A complete review and update of this TAM Plan was completed in January 2024.

VISION

WRTA's vision is that equipment, facilities and rolling stock are maintained in a state of good repair to assure safe and reliable transportation to the public it serves. To achieve this vision, the TAM Plan will inform and improve communication with departments within WRTA. To accomplish this, the TAM plan reviews asset service milestones from acquisition to disposal. In turn, the TAM system assists WRTA to forecast future budgetary needs to maintain a State of Good Repair of capital assets including maintenance, replacement or renovation.

WRTA's mission to provide safe reliable public transportation also includes the responsibility to preserve the environment. As an advocate of Green Initiatives, WRTA explores opportunities to support environmentally friendly vehicles, technology and facilities. In 2024, WRTA plans to support this mission by demonstrating a purpose-built, high automation Accessible Automated Electric Vehicle (AAeV). In 2021, WRTA installed three (3) electric vehicle charging stations, each capable of charging two (2) electric vehicles simultaneously. Funding is in place for WRTA to issue a procurement for an all-electric paratransit bus. In 2025 WRTA plans to install a solar canopy of approximately 315 Kw to support the charging of electric vehicles. WRTA will continue researching equipment and opportunities to add additional battery electric buses and associated charging equipment to its fleet and facilities to pursue the transition to a more renewable and environmentally friendly fuel.

TARGET DEVELOPMENT

Developing the targets involves accounting for existing inventories as well as anticipated additions and replacements. Targets for rolling stock and equipment are determined using assets stored in WRTA’s Asset Management Software (TMW) and the remaining useful life benchmark methodology. Targets for facilities are determined for assets included in the TAM Plan using the Ohio Public Transportation Facilities and Equipment Management System (PTMS) scale of condition. Per Federal ruling, targets must be based on realistic expectations and the best available data. Descriptions for each methodology are listed below.

TARGETS

The following tables indicate the targets for the State of Good Repair (SGR) for transit assets that are included in WRTA’s Transit Asset Management Plan.

Targets for asset code LTV assume that some vehicles that reached the end of benchmarked useful life are in state of good repair and remain in service as part of WRTA’s fleet to be utilized as vehicles for current and future pilot services.

Targets for asset code Support Vehicles assume that some vehicles that reached the end of their benchmarked useful are in state of good repair and utilized as operator relief vehicles.

WRTA’s Board of Trustees passed a Resolution to suspend all fares until December 2024. WRTA plans to monitor the impact of the lost fare revenue and possibly suspend fares indefinitely. 2025’s asset code Fare Collection shall be evaluated to determine the need for updating or overhauling existing Fare Collection system prior to December 2024.

Figure 1: 2024 Asset Performance Targets

Asset Category	2024 Performance Measures	Vehicle Code	Baseline	Target
Rolling Stock	Age - % of revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark (ULB)	B35-HD	0%	0%
		LTV	27%	13%
		MMV	83%	20%
Equipment	Age - % support equipment that has met or exceed their Useful Life Benchmark (ULB)	Support Vehicles	33%	13%
		Equipment	0%	0%
Facilities	Condition - % of facilities with condition rating below 3 (Adequate)	Facilities	33%	33%

Figure 2: 2025 Asset Performance Targets

Asset Category	2025 Performance Measures	Vehicle Code	Baseline	Target
Rolling Stock	Age - % of revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark (ULB)	B35-HD	0%	0%
		LTV	28%	11%
		MMV	20%	0%
Equipment	Age - % support equipment that has met or exceed their Useful Life Benchmark (ULB)	Support Vehicles	13%	13%
		Equipment	0%	0%
Facilities	Condition - % of facilities with condition rating below 3 (Adequate)	Facilities	33%	33%

Figure 3: 2026 Asset Performance Targets

Asset Category	2026 Performance Measures	Vehicle Code	Baseline	Target
Rolling Stock	Age - % of revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark (ULB)	B35-HD	0%	0%
		LTV	14%	11%
		MMV	20%	0%
Equipment	Age - % support equipment that has met or exceed their Useful Life Benchmark (ULB)	Support Vehicles	13%	7%
		Equipment	13%	0%
Facilities	Condition - % of facilities with condition rating below 3 (Adequate)	Facilities	33%	0%

Figure 4: 2027 Asset Performance Targets

Asset Category	2027 Performance Measures	Vehicle Code	Baseline	Target
Rolling Stock	Age - % of revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark (ULB)	B35-HD	18%	13%
		LTV	25%	14%
		MMV	60%	20%
Equipment	Age - % support equipment that has met or exceed their Useful Life Benchmark (ULB)	Support Vehicles	13%	7%
		Equipment	20%	13%
Facilities	Condition - % of facilities with condition rating below 3 (Adequate)	Facilities	0%	0%

ROLLING STOCK AND EQUIPMENT METHODOLOGY

The acquisition dates stored in WRTA’s Asset Management Software and anticipated service lives are used to determine ages and whether assets are over or under their Useful Life Benchmarks (ULB). Anticipated service lives are primarily determined from past performance of each asset class. Condition rating criteria can be found in Appendix A.

Figure 5: Asset Useful Life Benchmarks

Asset Code	Vehicle or Equipment Description	Useful Life (years)
B35-HD	Heavy Duty Bus ≥ 35'	12
LTV	Light Transit Vehicle	6
MMV	Modified Minivan	5
Support	Service Support Vehicles (non-revenue)	8
Vehicle Lifts	In-ground Vehicle Hydraulic Lifts	20
Vehicle Wash	Vehicle Wash System	15
Baseline = $\frac{\text{Assets in asset code past ULB on January 5, 2024}}{\text{Total Assets in asset code on January 1, 2024}}$		
Target = $\frac{\text{Anticipated Assets in asset code past ULB on January 2, 2025}}{\text{Total Assets in asset code anticipated on January 2, 2025}}$		

FACILITIES METHODOLOGY

The condition of facility assets is rated utilizing FTA’s TERM five-point scale to describe the condition of facility assets. A facility is deemed to be in good repair if it has a condition rating of 3, 4 or 5 on this scale. A rating is assigned to a facility asset by using the median value of all primary ratings for the asset. Condition rating criteria can be found in Appendix A. Equipment assets valued between \$10,000 and \$50,000 are included in the facility’s condition rating.

TAM AND SGR POLICY

WRTA’s TAM and SGR Policy are presented below.

1. Maintain Capital Assets in a condition to operate their designed function at a full level of performance without posing a known unacceptable safety risk.
2. Ensure Capital Asset lifecycle investments have been met and/or recovered.
3. Maintain ≥ 4.0 equipment condition rating using the following scale:

Figure 6: Equipment Condition Rating Scale

Rating	Condition	Description
5	Excellent	Brand new, no major problems exist, only routine preventative maintenance needed.
4	Good	Components are in good working order, require only normal or infrequent minor repairs.
3	Moderate	Requires frequent minor repairs or infrequent major repairs.
2	Poor	Requires frequent major repairs.
1	Insufficient	Poor condition that continued use presents potential problems.

4. Maintain ≥ 3.0 facility condition rating using the following scale:

Figure 7: Facility Condition Rating Scale

Rating	Condition	Description
5	Excellent	No visible defects, new or near new condition, may still be under warranty if applicable.
4	Good	Good condition, but is no longer new, may be slightly defective or deteriorated, but is overall functional.
3	Adequate	Moderately deteriorated or defective; but has not exceeded useful life.
2	Marginal	Defective or deteriorated in need of replacement; exceeded useful life.
1	Poor	Critically damaged or in need of immediate repair; well past useful life.

TAM GOALS AND/OR OBJECTIVES

Transit Asset Management Plan goals and objectives are in-line with WRTA’s mission to continuously improve customer service, safety and continuously improve operations to lower overall operating costs.

Figure 8: TAM Goals and/or Objectives

Goals	Objectives
Improved customer service	<ul style="list-style-type: none"> ➤ Improve on-time performance and service operations. ➤ Improve vehicle and facility cleanliness. ➤ Focus investments on customer-centered goals and metrics.
Improved productivity and reduced costs	<ul style="list-style-type: none"> ➤ Maintain asset effectively, using condition-based approaches and using predictive and preventative maintenance strategies, when possible, to reduce cost while improving service delivery.

Optimize resource allocation	<ul style="list-style-type: none"> ➤ Align spending with goals and objectives to obtain the greatest return on investment (ROI) from limited funds. ➤ Incorporate lifecycle cost, risk analysis, and performance trade-offs into capital programming and operations maintenance budgeting.
Improved stakeholder communications	<ul style="list-style-type: none"> ➤ Provide stakeholders with more accurate and timelier customer-centered performance indicators. ➤ Provide tools to communicate forecasted performance metrics (including level of service) based on different levels of funding.

ROLES AND RESPONSIBILITIES

WRTA staff are the key stakeholders in asset management planning. Key responsibilities are as follows:

Figure 9: WRTA TAM Plan Roles and Responsibilities

Individual	Role	Responsibilities
Dean Harris	Executive Director	Direction and management of the organization. Approval of TAM Plan annually. Transit Asset Management Plan Accountable Executive.
Randy Chismar	Secretary Treasurer/Finance Director	Budgeting and financial capability and sufficiency.
Judy Rodriquez	Transportation Director	Management and operation of transportation services.
Dean Soroka	Human Resources Director	Management of Human Resources activities, staff recruiting, labor relations, risk management and benefit programs.
Jeff Siwec	Maintenance and Procurement Director	Preparation of TAM plan; monitoring of TAM Plan status; management of maintenance activities; manage capital replacement projects.
Rebecca Koenig	Procurement Specialist	Procurement and capital project oversight coordinator.
Dennis Maynard	Senior Shop Foreman	Monitors daily operation of vehicle maintenance activities and equipment.
Jamie Pinto	Shop Forewoman	Supports daily operation of vehicle maintenance activities.
Ryan Kincaid	Building & Grounds Manager	Manages facilities and grounds maintenance activities

ASSET INVENTORY/CONDITION SUMMARY

The asset inventory is summarized in the following table. A detailed listing of assets is presented in Appendix B.

Figure 10: Summary of Assets

Asset Category	Total Number	Average Age (years)	Average Value	Average Condition Rating	% At or Past ULB
Equipment	15	8	\$497,667	4.1	0%
Facilities	3	38	\$2,935,924	3.5	67%
Rolling Stock	104	5	\$165,887	3.9	19%

INVESTMENT PRIORITIZATION

Assets are scheduled for replacement or rebuild using data to review useful life expectancy, condition rating, prior investment obligations, actual use received from asset and the cost to repair or rebuild asset.

Investment priorities are developed by review of an assets condition rating, ULB, and current/future impact on service levels with investment priority being focused on safety and impact on service level. Questions:

- Is the asset performing without compromise to safety?
 - If the answer is no, immediate investment is required, overhaul/renovate.
- Is the asset performing without continuous interruptions to service levels?
 - If the answer is no, the asset is reviewed to determine the level of investment required, overhaul/renovate, replace, or adjust ULB.

Investment priorities are scheduled for action through Ohio’s State Transportation Improvement Program (STIP). This four-year program is developed collaboratively by WRTA, the Eastgate Regional Council of Governments and the Ohio Department of Transportation (ODOT). The STIP contains all projects for which WRTA will receive federal funding through the FTA. WRTA’s local funds are used to match federal and state funding. It is through development of the STIP and periodic amendments that funding constraints and limitations factors are considered in setting investment priorities.

WRTA’s current investment priorities are presented in the projects that are programmed for the Federal Fiscal Year 2024 – 2027 STIP, as documented in the STIP published by the Ohio Department of Transportation (ODOT) and the Eastgate Regional Council of Governments. STIP amendments are requested to add new projects. When priorities change and an amendment is required, WRTA works with Eastgate and ODOT to amend the STIP. Amendments are then submitted to the FTA for approval. Once approved, amendments are published by ODOT. A new four-year STIP is typically prepared and published every two years.

DECISION SUPPORT

TMW (WRTA’s Asset Management Software) tracks asset maintenance schedules, repairs, and usage. WRTA’s management team meets as needed to review state of good repair, prepare for development of capital asset replacement and acquisition, and review and update the TAM Plan. TMW tracks and stores data to provide a variety of on-time asset history reports. The data provided assists in the development of short and long range capital plans that are incorporated into Eastgate Regional Council of Government’s Transportation Improvement Program (TIP) and ODOT’s State Transit Improvement Plan.

RISK MANAGEMENT

Preventative Maintenance is scheduled at regular intervals for assets. Rolling stock maintenance activities are described in the table below. Preventative Maintenance inspections are designed and monitored to prevent potential safety hazards and level of service interruptions. Please see Appendix C for WRTA’s complete Preventative Maintenance Plan.

Figure 11: Preventative Maintenance Schedule Summary

Asset Category/Class	Maintenance Activity	Frequency	Average Duration (hrs)	Cost
Heavy Duty Bus	PM Inspection	6,000 Miles	8	\$1,000
LTV	PM Inspection	5,000 Miles	5	\$400
Modified Minivan	PM Inspection	5,000 Miles	3	\$150
Equipment	PM Inspection	Bi-Annual	3	\$180
Support Vehicles	PM Inspection	5,000 Miles	1	\$50

OVERHAUL STRATEGY

Available financial resources influence the type of investment an asset or asset category receives. The priority is to maintain assets in a state of good repair. Continuous monitoring of assets relative to performance and investment measures guide investment recommendations.

DISPOSAL STRATEGY

Assets are retired upon review of condition rating, ULB, and current/future impact on service levels. The determining factor is whether the asset is performing without compromise to safety or excessive financial investment.

ACQUISITION AND RENEWAL STRATEGY

Replace and maintain assets, improving performance in areas that caused the need for replacement of the asset.

CAPITAL INVESTMENT ACTIVITY SCHEDULES

The schedule for capital investment in 2024 is presented in the table below, consistent with the updated Eastgate/ODOT STIP. The schedule for future capital investment is published in the Eastgate/ODOT STIP.

Figure 12: Capital Investment Schedule

Project Year	Project Name	Asset	Cost	Priority
2024	(4) Support Vehicle	Rolling Stock	\$212,000	High
2024	Enterprise Resource Planning Software	IT	\$1,100,000	High
2024	Phone System upgrade	IT	\$50,000	Medium
2024	Property Acquisition Park-n-Ride North Jackson Area	Facility	\$250,000	Medium

2024	Parking Lot Installation/Perimeter Fencing	Facility	\$300,000	Low
2024	Back-up Generator Passenger Station	Facility	\$180,000	Medium
2024	(3) Modified Minivan Replacement	Rolling Stock	\$240,000	High
2024	Property/Building Acquisition - 730 Mahoning Ave	Facility	\$650,000	Medium
2025	Park-N-Ride Parking Lot - North Jackson Area	Facility	\$680,000	Low
2025	Bus Barn Rehab	Facility	\$5,391,940	High
2025	Parking Lot Canopy w/Solar Panel	Facility	\$3,375,000	High
2025	Heavy Duty Bus Charging Stations	Facility	\$277,255	Medium
2025	Office/Maintenance Areas Addition	Facility	\$6,000,000	Medium
2025	(3) Electric Buses	Rolling Stock	\$1,080,000	Medium
2025	Property Acquisition Transit Center - 224/Boardman	Facility	\$500,000	Low
2026	8 Bus Replacement, STD 35'	Rolling Stock	\$7,000,000	Medium
2026	5 Bus Replacement <35'	Rolling Stock	\$600,000	Medium
2026	(2) Support Vehicle	Rolling Stock	\$108,000	Medium
2026	Heavy Duty Bus Charging Stations	Facility	\$200,000	Medium
2026	Passenger Transfer/Waiting Area - North Jackson	Facility	\$2,000,000	Low
2026	Two-way Radio System	IT	\$172,500	Medium
2026	Generator Replacement - 604 Mahoning	Facility	\$225,000	Medium
2026	Renovate Bus Storage Building (solar)	Facility	\$4,000,000	Medium
2026	Renovate Bus Storage Building (building)	Facility	\$5,000,000	Medium

TRANSIT ASSET MANAGEMENT PLAN TIMELINE

The timeline for developing the annual Transit Asset Management Plan is presented below. The timeline for the TAM Plan will integrate the Eastgate/ODOT published schedule that WRTA will follow as funding permits. The annual timelines are as follows:

Figure 13: TAM Timeline

Date	Activity
On or before March 1	Publish Transit Asset Management Plan
On or Before July 1	Review State Transportation Improvement Plan (STIP)
On or before October 1	Review and update of investment priorities considering funding constraints
On or before December 1	Review elements required to update and publish TAM Plan

APPENDIX A – CONDITION RATING SCALE

Figure 14: Facility Rating Criteria and Scale

Facility Rating Criteria and Scale		
TERM	Rating	Description
5	Excellent	New construction, no visible defects or damage.
4	Good	Minor improvement needed; sub-elements are more than 5 years old but are functioning without issue under routine maintenance. No sagging, corrosion, cracking, shifting or leaks.
3	Adequate	Repairs are needed. Element or sub-elements show signs of minor cracking, drainage issues, sagging, corrosion or shifting. They are cosmetically "fair" but functioning as designed.
2	Marginal	Element or sub-elements show signs of significant cracking, sagging, swelling, corrosion, leaks or shifting. Significant repairs are needed but there currently does not appear to be a safety issue on any single sub-element.
1	Poor	Element or sub-elements have critical defects affecting function, health or safety. They are in visibly poor condition and must be replaced rather than repaired. Useful life is exceeded and warrant structural review.
Primary and Secondary Evaluation Factors		
A. SUBSTRUCTURE: Foundation		
B. SHELL: Superstructure/structural frame, including columns, pillars and walls Roof: roof surface, gutters, eaves, skylights, chimney surrounds Shell appurtenances: Balconies, fire escapes Gutters, downspouts		
C. INTERIORS: Partitions: Walls, interior doors, fittings, signage Stairs: Interior stairs and landings Finishes: Materials used on walls, floors and ceilings		
D. CONVEYANCE: Elevators, Escalators Lifts: Any other such fixed apparatuses for the movement of goods or people		
E. PLUMBING: Fixtures, Water distribution, sanitary waste, rain water drainage		
F. HVAC: Energy supply Heating/cooling generation and distribution systems Testing, balancing, controls and instrumentation Chimneys and vents		
G. FIRE PROTECTION: Sprinklers, Standpipes, Hydrants and other fire protection specialties		
H. ELECTRICAL: Electrical service and distribution Lighting and branch wiring (interior and exterior) Communications and security Other electrical system related pieces such as lighting protection, generators, and emergency lighting		
I. EQUIPMENT: Equipment related to the function of the facility Includes maintenance or vehicle service equipment		
J. SITE: Roadways/driveways and associated signage, markings and equipment Parking lots and associated signage, markings and equipment Pedestrian areas and associated signage, markings and equipment Site development such as fences, walls and miscellaneous structures Landscaping and irrigation		

Figure 15: Vehicle Rating Criteria and Sale – Revenue and Support Vehicles

Vehicle Rating Criteria and Scale		
Revenue Vehicles (Heavy Duty, Light Transit Vehicles, Modified Mini Vans) and Support Vehicles		
TERM	Rating	Description
5	Excellent	Excellent: Brand new, no major problems exist; only routine preventative maintenance (PM)
4	Good	Elements are in good working order requiring only nominal or infrequent minor repairs (greater than 6 months between minor repairs)
3	Moderate	Requires frequent minor repairs (less than 6 months between repairs) or infrequent major repairs (less than 6 months between major repairs)
2	Poor	Requires frequent major repairs (less than 6 months between major repairs)
1	Insufficient	Insufficiently poor condition that continued use presents potential problems
Evaluation Factors		
Engine		Available compression tests, oil usage, oil analysis and noise
Drive Train		Transmission and rear-end based on fluid analysis, shift quality, fluid leaks and noise
Electrical		Lights, switches, gauges and other electrical mechanisms relative to general working conditions; wiring conditions especially front to back wiring
Suspension/Steering		Evaluate on the basis of tire wear, structure integrity steering and worn joints
HVAC		Heating and cooling capability throughout the vehicle in order to maintain passenger and
Structure		Extent of crack and corrosion involvement in the structure
Body Interior		Condition of floor, windows, seats, side and modesty panels and general interior items
Body Exterior		Extent of cracks, dents, rust
ADA Accessibility		Ability to load and unload passengers safely
Safety Systems		Braking system including emergency braking system, emergency exit windows, doors, hatches, etc.

Figure 16: Support Equipment Rating Criteria and Scale

Support Equipment Rating Criteria and Scale		
TERM Rating		Description
5	Excellent	Excellent: Brand new, no major problems exist; only routine preventative maintenance (PM)
4	Good	Elements are in good working order requiring only nominal or infrequent minor repairs (greater than 6 months between minor repairs)
3	Moderate	Requires frequent minor repairs (less than 6 months between repairs) or infrequent major repairs (less than 6 months between major repairs)
2	Poor	Requires frequent major repairs (less than 6 months between major repairs)
1	Insufficient	Insufficiently poor condition that continued use presents potential problems
Evaluation Factors		
Engine		Available compression tests, oil usage, oil analysis and noise
Drive Train		Transmission and rear end based on fluid analysis, shift quality, fluid leaks and noise
Suspension/ Steering		Basis of tire wear, structure integrity, steering and worn joints
Body Interior		Condition of floor, window, seats, and general interior items
Body Exterior		Extent of cracks, dents, rust
Safety Systems		Braking system including emergency braking system, emergency exit windows, doors, hatches, etc.
Structure		Extent of crack and corrosion involvement in the structure
Electrical		Lights, switches, gauges and other electrical mechanisms relative to general working conditions. Evaluate wiring condition especially front to back wiring if applicable
Motor Pumps		Available oil usage, oil analysis, and noise
Control Enclosure		Condition of enclosure
Software/ Hardware		Software/hardware support available, functions properly

APPENDIX B – ASSET INVENTORY

Figure 17: Asset Inventory - Heavy Duty Buses

Asset Category	Asset Code	Make	Model	ID/Serial No.	Asset Owner	Age (Yrs)	Condition Rating	Replacement Cost/Value	In-service date	Useful Life Benchmark (yrs)	Past Useful Life Benchmark
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2049	WRTA	9	3.7	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2050	WRTA	9	3.3	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2051	WRTA	9	3.4	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2052	WRTA	9	3.7	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2053	WRTA	9	3.3	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2054	WRTA	9	3.3	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2055	WRTA	9	3.3	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2056	WRTA	9	3.3	\$430,000	11/18/2014	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2057	WRTA	9	3.9	\$430,000	5/13/2015	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2058	WRTA	9	3.6	\$430,000	5/13/2015	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2059	WRTA	9	3.9	\$430,000	5/13/2015	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2060	WRTA	9	3.6	\$430,000	5/13/2015	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2061	WRTA	9	3.9	\$430,000	5/13/2015	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2062	WRTA	8	4	\$430,000	5/5/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2063	WRTA	8	3.6	\$430,000	5/25/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2064	WRTA	8	4	\$430,000	5/5/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2065	WRTA	8	4	\$430,000	5/5/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2066	WRTA	8	4	\$430,000	6/6/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2067	WRTA	8	4	\$430,000	6/22/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2068	WRTA	8	3.6	\$430,000	6/22/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2069	WRTA	8	3.6	\$430,000	7/5/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2070	WRTA	8	3.6	\$430,000	6/22/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2071	WRTA	8	3.8	\$430,000	6/24/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2072	WRTA	8	3.6	\$430,000	6/24/2016	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2073	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2074	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2076	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2077	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2078	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2079	WRTA	7	3.9	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2080	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2081	WRTA	7	3.8	\$430,000	5/16/2017	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2082	WRTA	6	3.9	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2083	WRTA	6	3.9	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2084	WRTA	6	3.9	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2085	WRTA	6	3.9	\$430,000	5/10/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2086	WRTA	6	3.8	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2087	WRTA	6	3.9	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2088	WRTA	6	3.9	\$430,000	3/29/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2089	WRTA	6	3.9	\$430,000	4/27/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2090	WRTA	6	4	\$430,000	4/27/2018	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2091	WRTA	4	4	\$430,000	1/13/2020	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2092	WRTA	4	4	\$430,000	1/17/2020	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2093	WRTA	4	4	\$430,000	1/8/2020	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2094	WRTA	4	4	\$430,000	1/4/2020	12	No
Rolling Stock	Heavy Duty Bus	Gillig	35' Low Floor	2095	WRTA	0	5	\$608,000	10/9/2023	12	No

Figure 18: Asset Inventory – Light Transit Vehicles

Asset Category	Asset Code	Make	Model	ID/Serial No.	Asset Owner	Age (Yrs)	Condition Rating	Replacement Cost/Value	In-service date	Useful Life Benchmark (yrs)	Past Useful Life Benchmark	Replacement Date
Rolling Stock	LTV	Ford	Eldorado	924	WRTA	8.0	3.1	\$120,000	2/4/2016	6	Yes	2/2/2022
Rolling Stock	LTV	Ford	Eldorado	926	WRTA	8.0	3.1	\$120,000	2/4/2016	6	Yes	2/2/2022
Rolling Stock	LTV	Ford	Eldorado	929	WRTA	6.6	3.3	\$120,000	6/12/2017	6	Yes	6/11/2023
Rolling Stock	LTV	Ford	Eldorado	930	WRTA	6.6	3.3	\$120,000	6/12/2017	6	Yes	6/11/2023
Rolling Stock	LTV	Ford	Eldorado	931	WRTA	6.7	3.3	\$120,000	5/25/2017	6	Yes	5/24/2023
Rolling Stock	LTV	Ford	Eldorado	932	WRTA	6.7	3.3	\$120,000	5/25/2017	6	Yes	5/24/2023
Rolling Stock	LTV	Ford	Eldorado	551	WRTAYSU	8.9	3.1	\$120,000	3/10/2015	6	Yes	3/8/2021
Rolling Stock	LTV	Ford	Eldorado	552	WRTAYSU	8.9	3.1	\$120,000	3/11/2015	6	Yes	3/9/2021
Rolling Stock	LTV	Ford	Eldorado	553	WRTAYSU	6.7	3.8	\$120,000	5/2/2017	6	Yes	5/1/2023
Rolling Stock	LTV	Ford	Eldorado	554	WRTAYSU	6.7	3.8	\$120,000	5/2/2017	6	Yes	5/1/2023
Rolling Stock	LTV	Ford	Eldorado	933	WRTA	3.5	4	\$120,000	8/11/2020	6	No	8/10/2026
Rolling Stock	LTV	Ford	Eldorado	934	WRTA	3.5	4	\$120,000	8/11/2020	6	No	8/10/2026
Rolling Stock	LTV	Ford	Eldorado	935	WRTA	3.5	4	\$120,000	8/11/2020	6	No	8/10/2026
Rolling Stock	LTV	Ford	Eldorado	936	WRTA	3.5	4	\$120,000	8/11/2020	6	No	8/10/2026
Rolling Stock	LTV	Ford	Eldorado	937	WRTA	3.5	4	\$120,000	8/11/2020	6	No	8/10/2026
Rolling Stock	LTV	Ford	Arboc	938	WRTA-FR	3.0	4	\$181,851	1/18/2021	6	No	1/17/2027
Rolling Stock	LTV	Ford	Arboc	939	WRTA-FR	3.0	4	\$181,851	1/18/2021	6	No	1/17/2027
Rolling Stock	LTV	Ford	Arboc	940	WRTA-FR	3.0	4	\$181,851	1/18/2021	6	No	1/17/2027
Rolling Stock	LTV	Ram	NEW	941	WRTA-FR	1.1	5	\$170,144	12/28/2022	6	No	12/26/2028
Rolling Stock	LTV	Ram	NEW	942	WRTA-FR	1.1	5	\$170,144	12/28/2022	6	No	12/26/2028
Rolling Stock	LTV	Ram	NEW	943	WRTA-FR	1.1	5	\$170,144	12/28/2022	6	No	12/26/2028
Rolling Stock	LTV	Ram	NEW	944	WRTA	0.6	4.5	\$173,000	6/28/2023	6	No	6/26/2029
Rolling Stock	LTV	Ram	NEW	945	WRTA	0.6	5	\$173,000	6/28/2023	6	No	6/26/2029
Rolling Stock	LTV	Ram	NEW	946	WRTA	0.6	5	\$173,000	6/28/2023	6	No	6/26/2029
Rolling Stock	LTV	Ram	NEW	947	WRTA	0.6	5	\$173,000	6/28/2023	6	No	6/26/2029
Rolling Stock	LTV	Ram	NEW	948	WRTA	0.6	5	\$173,000	6/28/2023	6	No	6/26/2029
Rolling Stock	LTV	Ram	NEW	949	WRTA	0.4	5	\$173,000	9/1/2023	6	No	8/30/2029
Rolling Stock	LTV	Ford	Diamond	950	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	951	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	952	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	953	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	954	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	955	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	956	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	957	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	958	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030
Rolling Stock	LTV	Ford	Diamond	959	WRTA	0.0	5	\$95,851	2/1/2024	6	No	1/30/2030

Figure 19: Asset Inventory - Modified Minivans

Asset Category	Asset Code	Make	Model	ID/Serial No.	Asset Owner	Age (Yrs)	Condition Rating	Replacement Cost/Value	In-service date	Useful Life Benchmark (yrs)	Past Useful Life Benchmark	Replacement Date
Rolling Stock	Modified Mini-Van	Dodge	Caravan	1008	WRTA	7	3.2	\$50,000	3/30/2017	5	Yes	3/29/2022
Rolling Stock	Modified Mini-Van	Dodge	Caravan	1009	WRTA	7	3.1	\$50,000	3/31/2017	5	Yes	3/30/2022
Rolling Stock	Modified Mini-Van	Dodge	Caravan	1010	WRTA	7	3.1	\$50,000	4/13/2017	5	Yes	4/12/2022
Rolling Stock	Modified Mini-Van	Dodge	Caravan	1012	WRTA	5	3.1	\$50,000	2/1/2019	5	Yes	1/31/2024
Rolling Stock	Modified Mini-Van	Dodge	Caravan	1013	WRTA	6	3.2	\$50,000	10/1/2017	5	Yes	9/30/2022
Rolling Stock	Modified Mini-Van	Dodge	Voyager	1014	WRTA	0	5	\$57,500	10/1/2023	5	No	9/29/2028

Figure 20: Asset Inventory – Support Vehicles

Asset Category	Asset Code	Make	Model	ID/Serial No.	Asset Owner	Age (Yrs)	Condition Rating	Replacement Cost/Value	In-service date	Useful Life Benchmark (yrs)	Past Useful Life Benchmark	Replacement Date
Rolling Stock	SUV	Chevrolet	Traverse	1	WRTA	11	3	\$30,000	1/1/2013	8	Yes	12/30/2020
Rolling Stock	SUV	Chevrolet	Traverse	2	WRTA	11	3	\$30,000	1/1/2013	8	Yes	12/30/2020
Rolling Stock	SUV	Chevrolet	Traverse	3	WRTA	11	2.9	\$30,000	1/1/2013	8	Yes	12/30/2020
Rolling Stock	SUV	Chevrolet	Traverse	4	WRTA	11	3	\$30,000	1/1/2013	8	Yes	12/30/2020
Rolling Stock	Truck	Chevrolet	2500	11	WRTA	13	3	\$35,000	12/16/2010	8	Yes	12/14/2018
Rolling Stock	Truck	Ford	F350	6	WRTA	7	5	\$90,000	3/1/2017	8	No	2/27/2025
Rolling Stock	SUV	Ford	Explorer	9	WRTA	4	5	\$30,000	1/28/2020	8	No	1/26/2028
Rolling Stock	SUV	Jeep	Cherokee	12	WRTA	4	5	\$30,000	7/29/2020	8	No	7/27/2028
Rolling Stock	SUV	Jeep	Cherokee	13	WRTA	4	5	\$30,000	7/29/2020	8	No	7/27/2028
Rolling Stock	SUV	Jeep	Cherokee	14	WRTA	4	5	\$30,000	7/29/2020	8	No	7/27/2028
Rolling Stock	Truck	Ford	F250	15	WRTA	3	5	\$50,000	10/15/2020	8	No	10/13/2028
Rolling Stock	Truck	Ford	F250	16	WRTA	3	5	\$65,600	1/20/2021	8	No	1/18/2029
Rolling Stock	SUV	Ford	Mach-E	17	WRTA	2	5	\$47,805	4/26/2022	8	No	4/24/2030
Rolling Stock	SUV	Ford	Mach-E	18	WRTA	2	5	\$47,805	4/26/2022	8	No	4/24/2030
Rolling Stock	Truck	Dodge	3500	19	WRTA	0	5	\$133,000	1/1/2024	8	No	12/30/2031

Figure 21: Asset Inventory – Equipment

Asset Category	Asset Code	Make	Model	ID/Serial No.	Asset Owner	Age (Yrs)	Condition Rating	Replacement Cost/Value	In-service date	Useful Life Benchmark (yrs)	Past Useful Life Benchmark
Equipment	In-ground Lift	Stertil Koni	Diamond	Lift1	WRTA	7	4.3	\$185,000.00	2/24/2017	20	No
Equipment	In-ground Lift	Stertil Koni	Diamond	Lift2	WRTA	7	4	\$185,000.00	2/24/2017	20	No
Equipment	In-ground Lift	Stertil Koni	Diamond	Lift3	WRTA	7	4	\$185,000.00	2/24/2017	20	No
Equipment	In-ground Lift	Stertil Koni	Diamond	Lift4	WRTA	7	4	\$185,000.00	2/24/2017	20	No
Equipment	In-ground Lift	Rotary	Dual	Lift5	WRTA	17	4	\$185,000.00	1/1/2007	20	No
Equipment	In-ground Lift	Rotary	Dual	Lift6	WRTA	17	4	\$185,000.00	1/1/2007	20	No
Equipment	In-ground Lift	Stertil Koni	Diamond	Lift7	WRTA	7	4	\$185,000.00	2/24/2017	20	No
Equipment	In-ground Lift	Rotary	Dual	Lift8	WRTA	17	4	\$185,000.00	1/1/2007	20	No
Equipment	Fare Collection	GFI	Odyssey	IT	WRTA	14	3	\$2,500,000.00	1/1/2010	15	No
Equipment	Equipment	Tennant	385	30	WRTA	4	4	\$65,000.00	7/15/2020	10	No
Equipment	ITS	Avail	Technology	Avail	WRTA	7	4	\$2,400,000.00	7/28/2017	10	No
Equipment	Wash Rack	R & W	Brush	110	WRTA	1	4	\$600,000.00	6/19/2023	15	No
Equipment	Generator	Onan	250kW	859	WRTA	14	4	\$200,000.00	3/1/2010	15	No
Equipment	Aerial Lift	JLG	E400AJPN	31	WRTA	1	5	\$70,000.00	5/25/2023	10	No
Equipment	Above-Ground Lift	Omer	KAR 290 CL	Lift10	WRTA	1	5	\$150,000.00	7/17/2023	20	No

APPENDIX C – WRTA’S MAINTENANCE PLAN

See separate document.