MEMORANDUM REPORT NO. 265

# TRANSIT ASSET MANAGEMENT PLAN FOR KENOSHA AREA TRANSIT

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

MEMORANDUM REPORT
NUMBER 265

# TRANSIT ASSET MANAGEMENT PLAN FOR KENOSHA AREA TRANSIT

Prepared by the
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U.S. Department of Transportation
**Federal Highway Administration**

October 2022

**APPROVAL OF TRANSIT ASSET MANAGEMENT PLAN: 2022-2025**

As the Accountable Executive for Kenosha Area Transit, I approve the Transit Asset Management Plan and confirm its compliance with 49 CFR part 625. I further agree to comply with the recordkeeping and annual reporting requirements for transit asset management set forth in Sections 625.53 and 625.55. Kenosha Area Transit shall continue to self-certify compliance with all aspects of the TAM rule in the Certifications and Assurances phase of a grant application and will verify compliance with the TAM rule during Triennial or State Management Reviews.

**KENOSHA AREA TRANSIT**

By _____ Date 9-23-22

Nelson Ogbuagu
Director, Kenosha Area Transit

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# INTRODUCTION 1

At the request of and in close coordination with Kenosha Area Transit (KAT), the Southeastern Wisconsin Regional Planning Commission (SEWRPC) has prepared this Tier I Transit Asset Management (TAM) Plan.

The KAT system is operated by the City of Kenosha Department of Transportation within the City of Kenosha and portions of the Town of Somers and Village of Pleasant Prairie, under the name of Kenosha Area Transit. As documented in this TAM Plan, KAT is committed to maintaining its vehicles, equipment, and facilities in the best condition possible in order to provide efficient, reliable, and uninterrupted public transit service and to achieve maximum useful life from all transit assets.

KAT operates 56 buses on seven fixed routes and supplemental school routes serving the City of Kenosha and portions of the Town of Somers and the Village of Pleasant Prairie. In addition, their fleet includes three trolleybuses utilized for revenue service. KAT also operates an electric streetcar line, consisting of seven Presidents' Conference Committee (PCC)-type electric heritage streetcars, originally built in 1972. In the 1990's, prior to being acquired by KAT in 2000, the streetcars were rebuilt, including a complete electrical, mechanical, and structural overhaul. The rebuilding of the streetcars is estimated to have extended their lives by 20 years. KAT's electric streetcar route traverses a 1.9-mile loop from the Metra Commuter Rail Station into Harbor Park. For purposes of this TAM Plan, KAT is a Tier I transit operator due to their operation of the Kenosha Streetcar system. All KAT transit assets are summarized in Table 1.1.

This TAM Plan covers a four year planning period from 2022 through 2025. As required in the TAM regulations set forth in 49 CFR part 625, this TAM Plan includes the following components:

- An inventory of assets, including the number and type of capital assets such as rolling stock, facilities, and equipment
- A condition assessment of inventoried assets for which KAT has direct ownership and capital responsibility
- A description of the processes and decision-support tools that KAT uses to estimate the capital investments needed over time, and develop their investment prioritization
- A prioritized list of projects or programs to manage and improve the state of repair of capital assets
- Transit asset management and state of good repair policy
- Implementation strategy that documents the operational actions that KAT will conduct in order to achieve their TAM goals and policies
- List of key annual activities that are needed to implement the TAM Plan
- Identification of resources, including staff time, technology requirements, and funding that KAT needs to carry out the TAM Plan
- Evaluation plan, including an outline of how KAT will monitor, update, and evaluate the TAM Plan and related business practices to ensure continuous improvement

**Table 1.1**
**Summary of Asset Inventory for Kenosha Area Transit**

| Asset Category | Total Number | Average Age (Years) | Average Mileage[a] | Average Value ($) |
|---|---|---|---|---|
| Revenue Vehicles | | | | |
| Bus | 56 | 11.3 | 401,368 | 560,000 |
| Trolleybus | 3 | 17.0 | 135,447 | 107,167 |
| Streetcars | 7 | 17.6 | 70,060 | 73,000 |
| Equipment | | | | |
| Non-Revenue/Service Automobile | 10 | 14.9 | 61,453 | 34,570 |
| Streetcar Tracks | 1.9 miles | 18.0 | N/A | N/A[b] |
| Facilities | | | | |
| Administration Buildings/Transit Centers | 2 | 18.2 | N/A | N/A[b] |
| Parking Lots | 9 | 21.0 | N/A | N/A[b] |
| Metra Station | | | | |
| Elevator | 1 | 16.0 | N/A | N/A[b] |
| Stairwells | 1 | 16.0 | N/A | N/A[b] |
| Surface parking lot | 1 | 16.0 | N/A | N/A[b] |

[a] *Average mileage is the odometer reading from September 2022*

[b] *The replacement values/costs for equipment (other than non-revenue/service automobile), facilities, and the Metra Station components, for which Kenosha Area Transit has direct capital responsibility, are currently under review by KAT and will be updated as appropriate.*

*Source: Kenosha Area Transit and SEWRPC*

## 1.1 FEDERAL AND STATE TRANSIT ASSET MANAGEMENT PLANNING REQUIREMENTS

The Moving Ahead for Progress in the 21st Century Act (MAP–21) established new TAM data reporting requirements. These rules require that each transit provider that receives funds under 49 U.S.C. Chapter 53 as a recipient or subrecipient and either owns, operates, or manages capital assets used for public transportation is required to develop a TAM plan that provides a condition report of their infrastructure to anticipate and monitor the performance of assets in order to provide a basis for investment prioritization. The purpose of the rule is to aid transit providers in making more informed investment decisions that will ultimately improve the overall condition of each transit system's condition of capital assets.

## 1.2 ROLE OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) was established in 1960 as the official areawide planning agency for the southeastern region of the State. SEWRPC serves the seven counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha. The Commission, as the Metropolitan Planning Organization for the five urbanized areas in the Region, including the Kenosha, Milwaukee, Racine, and West Bend urbanized areas and a portion of the Round Lake Beach urbanized area, prepares a long-range (20-35 year) transportation plan. SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation Plan*, July 2017 and updated in 2020, recommends a long-range vision for land use and transportation in the Region. It makes recommendations to local and State government to shape and guide land use development and transportation improvements, including public transit, to the year 2050. Specifically, VISION 2050 proposes a substantial improvement and expansion of transit service in Southeastern Wisconsin over the next 30 years.

In addition to the long-range plan, the Commission prepares the four-year transportation improvement program (TIP) for the seven-county Southeastern Wisconsin Region, and short-range (five-year) transit development plans for each of the Region's public transit systems. A transit system development plan for the KAT System will be initiated in early 2023 and will provide an evaluation of existing transit services and travel patterns, present potential transit service alternatives, and identify recommendations to guide the implementation of service changes. This TAM Plan identifies transit asset priorities based on policies and critical needs, condition assessments, and estimated funding sources available to implement the proposed projects within the City of Kenosha's Capital Improvement Program, adopted budget, and the current TIP.

**Table 1.2**
**Transit Asset Management Targets for Southeastern Wisconsin**

| Asset | | | Performance Measure | Target |
|---|---|---|---|---|
| Category | Class | Examples | | |
| Rolling Stock | Buses, Other Passenger Vehicles, and Railcars | Bus, Cutaway, Van, Minivan, and Streetcars | Percent of revenue vehicles that have either met or exceeded their useful life benchmark | < 30% |
| Equipment | Non-revenue service vehicles and equipment over $50,000 | Route Supervisor Vehicles, Maintenance Trucks, Pool Vehicles, DPF Cleaning System, Bus Wash Systems, Fare Collection systems, Vehicle Lifts, etc. | Percent of vehicles and equipment that have either met or exceeded their useful life benchmark | < 30% |
| Facilities | Support | Maintenance and Administrative Facilities | Percent of facilities within an asset class, rated below 3 on condition reporting system | < 15% |
| | Passenger | Rail Terminals, Bus Transfer Stations | Percent of facilities within an asset class, rated below 3 on condition reporting system | 0% |
| | Parking | Park-Ride Lots with Direct Capital Responsibility | Percent of facilities within an asset class, rated below 3 on condition reporting system | 0% |
| Infrastructure | Fixed Guideway | Track Segments, Exclusive Bus Rights-of-Way, Catenary Segments, and Bridges | Percent of segments that have performance restrictions | 0% |

*Source: SEWRPC*

## 1.3 TRANSIT ASSET MANAGEMENT PERFORMANCE MEASURES

The Commission established the TAM Targets for Southeastern Wisconsin on June 30, 2017, in consultation with all of the Tier I and Tier II operators within the Region.[1] The regional TAM targets, as shown in Table 1.2, rely heavily on the TAM targets established by the Milwaukee County Transit System (MCTS), which, as the largest transit operator in the Region, represents over 90 percent of the replacement value of the publicly owned transit fleets within the Milwaukee urbanized area. As confirmed by MCTS in May 2022, no changes were anticipated to their transit asset management targets. Therefore, no changes were made to the regional TAM targets as part of this updated TAM Plan. The final TAM Targets for Southeastern Wisconsin were transmitted to the Wisconsin Department of Transportation (WisDOT) on July 10, 2017. The Commission has fulfilled the requirements of the Moving Ahead for Progress in the 21st Century (MAP-21) and 49 CFR part 625 in relation to TAM target setting. In June 2018, the Commission amended VISION 2050—the year 2050 regional land use and transportation plan—documenting the regionwide TAM targets. On December 9, 2020, the Commission adopted the Transportation Improvement Program (TIP) for Southeastern Wisconsin 2021-2024, which included a description of how the programmed projects promote the achievement of the TAM targets in Appendix E. Specifically, the 2021-2024 TIP includes $212 million of funds programmed for implementing capital-related transit preservation projects (such as vehicle capitalized maintenance and replacement projects and facility repair and upgrade projects) within the period of 2021-2024 TIP. The capital-related transit preservation projects programmed in the TIP were provided by transit operators based on their processes for monitoring the condition of their vehicles and facilities and prioritizing their maintenance and replacement given the level of available funding. The 2023-2026 TIP, anticipated to be adopted in late 2022, will also include a description of how projects achieve the TAM targets and verify the regional TAM targets.

[1] *A Tier I Transit Provider operates rail or has greater than or equal to 101 vehicles across all fixed route modes, or greater than or equal to 101 vehicles in one non-fixed route mode. A Tier II Transit Provider is a subrecipient of 5311 funds, or an American Indian Tribe, or operates less than or equal to 100 vehicles across all fixed route modes, or less than or equal to 100 vehicles in one non-fixed route mode.*

# TRANSIT ASSET INVENTORY 2

Kenosha Area Transit's (KAT) asset inventories for vehicles, equipment, and facilities are provided in Table 2.1, Table 2.2, and Table 2.3, respectively. The inventories include the four required categories of capital assets including facilities, equipment, rolling stock, and infrastructure.

The asset inventory provided in Table 2.1 includes the asset category, class, name (vehicle number), make, model, number of vehicles, the ID/Serial number, owner, acquisition year/last rebuild, mileage, and replacement value as of September 23, 2022. The acquisition year for vehicles reflects the year the vehicle was purchased by KAT. For purposes of the asset inventory, the "replacement cost" shown in Table 2.1 reflects average actual bus purchases in the 2020 Public Transportation Vehicle Database published by the American Public Transportation Association and the current prices found in procurement documents developed by the Wisconsin Department of Transportation including their Section 5310 Application Guidelines for Vehicle Capital, Appendix C: Anticipated Vehicle Description and Costs and the Heavy Duty Bus Price Sheet.

Table 2.2 includes the equipment that meets the reporting threshold of $50,000 in acquisition value for one line item or a group of assets, as required in 49 CFR part 625. As required, all service vehicles were included in the equipment inventory, regardless of their cost.

Lastly, Table 2.3 list the transit facilities owned by KAT, or those facilities for which KAT has direct capital responsibility or was jointly procured.

## Table 2.1
## Kenosha Area Transit Revenue Vehicle Inventory

| Asset Number | Make | Count | ID/Serial No. | Acquisition Year/Last Rebuild | Vehicle Mileage | Replacement Cost ($) |
|---|---|---|---|---|---|---|
| **30-Foot Buses** | | | | | | |
| 3012 | GILLIG | 1 | 15GGE291641090917 | 2004 | 394,527 | 560,000 |
| 3013 | GILLIG | 1 | 15GGE291841090918 | 2004 | 425,435 | 560,000 |
| 3015 | GILLIG | 1 | 15GGE291641090920 | 2004 | 383,931 | 560,000 |
| 3019 | GILLIG | 1 | 15GGE291341090924 | 2004 | 401,578 | 560,000 |
| **35-Foot Buses** | | | | | | |
| 3500 | GILLIG | 1 | 15GGB291441072859 | 2004 | 510,424 | 560,000 |
| 3501 | GILLIG | 1 | 15GGB291X41074129 | 2004 | 414,700 | 560,000 |
| 3502 | GILLIG | 1 | 15GGB291641074130 | 2004 | 437,105 | 560,000 |
| 3503 | GILLIG | 1 | 15GGB291841074131 | 2004 | 431,299 | 560,000 |
| 3506 | GILLIG | 1 | 15GGB291751074901 | 2005 | 387,353 | 560,000 |
| 3507 | GILLIG | 1 | 15GGB291951074902 | 2005 | 475,642 | 560,000 |
| 3508 | GILLIG | 1 | 15GGB291051074903 | 2005 | 442,186 | 560,000 |
| 3509 | GILLIG | 1 | 15GGB291251074904 | 2005 | 356,477 | 560,000 |
| 3510 | GILLIG | 1 | 15GGB291451074905 | 2005 | 521,428 | 560,000 |
| 3511 | GILLIG | 1 | 15GGB291651074906 | 2005 | 531,234 | 560,000 |
| 3512 | GILLIG | 1 | 15GGB291851074907 | 2005 | 548,291 | 560,000 |
| 3513 | GILLIG | 1 | 15GGB291X51074908 | 2005 | 555,625 | 560,000 |
| 3524 | GILLIG | 1 | 15GGB2716A1178535 | 2010 | 289,210 | 560,000 |
| 3525 | GILLIG | 1 | 15GGB2718A1178536 | 2010 | 369,079 | 560,000 |
| 3526 | GILLIG | 1 | 15GGB271XA1178537 | 2010 | 330,627 | 560,000 |
| 3527 | GILLIG | 1 | 15GGB2713A1178538 | 2010 | 361,017 | 560,000 |
| 3528 | GILLIG | 1 | 15GGB2713A1178539 | 2010 | 356,236 | 560,000 |
| 3529 | GILLIG | 1 | 15GGB2717N3197475 | 2022 | 14,723 | 560,000 |
| 3530 | GILLIG | 1 | 15GGB2719N3197476 | 2022 | 9,804 | 560,000 |
| **40-Foot Buses** | | | | | | |
| 4023 | GILLIG | 1 | 15GGD271991177000 | 2009 | 313,107 | 560,000 |
| 4024 | GILLIG | 1 | 15GGD271091177001 | 2009 | 312,729 | 560,000 |
| 4025 | GILLIG | 1 | 15GGD271291177002 | 2009 | 314,393 | 560,000 |
| 4026 | GILLIG | 1 | 15GGD271491177003 | 2009 | 331,404 | 560,000 |
| 4041 | GILLIG | 1 | 15GGD2714C1179308 | 2012 | 224,933 | 560,000 |
| 4042 | GILLIG | 1 | 15GGD2716C1179309 | 2012 | 287,376 | 560,000 |
| 4043 | GILLIG | 1 | 15GGD2712C1179310 | 2012 | 281,984 | 560,000 |
| 4044 | GILLIG | 1 | 15GGD2715D1181862 | 2013 | 272,934 | 560,000 |
| 4045 | GILLIG | 1 | 15GGD2717D1181863 | 2013 | 253,509 | 560,000 |
| 4046 | GILLIG | 1 | 15GGD2719D1181864 | 2013 | 292,979 | 560,000 |
| 4047 | GILLIG | 1 | 15GGD2710D1181865 | 2013 | 295,741 | 560,000 |
| 4048 | GILLIG | 1 | 15GGD2712D1181866 | 2013 | 306,163 | 560,000 |
| 4049 | GILLIG | 1 | 15GGD2714D1181867 | 2013 | 264,029 | 560,000 |
| 4050 | GILLIG | 1 | 15GGD2716D1181868 | 2013 | 311,978 | 560,000 |
| 4051 | GILLIG | 1 | 15GGD2710K3193113 | 2019 | 121,334 | 560,000 |
| 4052 | GILLIG | 1 | 15GGD2712K3193114 | 2019 | 126,160 | 560,000 |
| 4053 | GILLIG | 1 | 15GGD2714K3193115 | 2016 | 132,805 | 560,000 |
| 4054 | GILLIG | 1 | 15GGD2716K3193116 | 2019 | 117,648 | 560,000 |
| 4055 | GILLIG | 1 | 15GGD2718K3193117 | 2019 | 137,613 | 560,000 |
| 4056 | GILLIG | 1 | 15GGD271XK3193119 | 2019 | 123,015 | 560,000 |
| 4057 | GILLIG | 1 | 15GGD2712L3195723 | 2020 | 61,771 | 560,000 |
| 4058 | GILLIG | 1 | 15GGD2714L3195724 | 2020 | 72,933 | 560,000 |
| 4059 | GILLIG | 1 | 15GGD2716L3195725 | 2020 | 73,056 | 560,000 |
| 4060 | GILLIG | 1 | 15GGD2718L3195726 | 2020 | 62,357 | 560,000 |
| 4061 | NewFlyer | 1 | 5FYD5FV01AB037434 | 2010 | 524,830 | 560,000 |
| 4062 | NewFlyer | 1 | 5FYD5FV03AB037483 | 2010 | 571,736 | 560,000 |
| 4063 | NewFlyer | 1 | 5FYD5FV07AB037499 | 2010 | 586,969 | 560,000 |
| 4064 | NewFlyer | 1 | 5FYD5FV04AB037508 | 2010 | 540,001 | 560,000 |
| 4065 | NewFlyer | 1 | 5FYD5FV09AB037486 | 2010 | 546,309 | 560,000 |
| 4066 | NewFlyer | 1 | 5FYD5FV01AB037496 | 2010 | 568,453 | 560,000 |

**Table continued on next page.**

## Table 2.1 (Continued)

| Asset Number | Make | Count | ID/Serial No. | Acquisition Year/Last Rebuild | Vehicle Mileage | Replacement Cost ($) |
|---|---|---|---|---|---|---|
| **40-Foot Buses (continued)** | | | | | | |
| 4067 | NewFlyer | 1 | 5FYDF5FV04AB037444 | 2010 | 452,543 | 560,000 |
| 4068 | NewFlyer | 1 | 5FYD5FV06BB038676 | 2011 | 563,956 | 560,000 |
| 4069 | NewFlyer | 1 | 5FYD5FV02BB038688 | 2011 | 577,105 | 560,000 |
| **Trolley Buses** | | | | | | |
| 2439 | Dupont | 1 | 2D9S21307W1070528 | 1998 | 49,415 | 238,500 |
| 3369 | Dupont | 1 | 2D9P22326X1070535 | 1999 | 177,513 | 4,000 |
| 3415 | Freightliner | 1 | 4UZAB9DTXACAT2704 | 2010 | 179,413 | 79,000 |
| **Streetcars/Canadian Cars** | | | | | | |
| 4606 | PCC streetcar | 1 | A-15PCC4606 | 2000 | 71,644 | 73,000 |
| 4609 | PCC streetcar | 1 | A-15PCC4609 | 2000 | 77,592 | 73,000 |
| 4610 | PCC streetcar | 1 | A-15PCC4610 | 2000 | 95,111 | 73,000 |
| 4615 | PCC streetcar | 1 | A-15PCC4615 | 2000 | 57,314 | 73,000 |
| 4616 | PCC streetcar | 1 | A-15PCC4616 | 2000 | 75,731 | 73,000 |
| 4617 | PCC streetcar | 1 | A-15PCC4617 | 2011 | 63,444 | 73,000 |
| 2185 | PCC streetcar | 1 | A-46PCC2185 | 2011 | 49,584 | 73,000 |

Note: Vehicle mileage as of September 2022.

*Source: Kenosha Area Transit, FTA, and SEWRPC*

## Table 2.2
## Kenosha Area Transit Equipment Inventory

| Asset Class[a] | Asset Number | Make | Model | Count | ID/Serial No. | Acquisition Year | Vehicle Mileage | Replacement Cost ($) |
|---|---|---|---|---|---|---|---|---|
| (NR) | 1667 | GMC | Van | 1 | 2GTEG25H7G452366B | 1986 | 101,165 | 22,200 |
| (NR) | 2297 | GMC | Van | 1 | 1GJGG35K0TF503706 | 1996 | 107,191 | 22,200 |
| (NR) | 2402 | GMC | Truck | 1 | 1GTGK29RXWE528775 | 1998 | 131,354 | 27,500 |
| (NR) | 2841 | GMC C-AWAY | N/A | 1 | 1GDJG31U661134142 | 2006 | 53,709 | 36,400 |
| (NR) | 3071 | Ford | F350 dump truck | 1 | 1FDWF3HR7AEB37854 | 2010 | 16,872 | 56,200 |
| (NR) | 3111 | Ford | F350 | 1 | 1FDRF3HT5BEB59958 | 2011 | 15,031 | 56,700 |
| (NR) | 3302 | Ford | N/A | 1 | 1FMCU9GX5FUC06131 | 2015 | 35,786 | 22,600 |
| (NR) | 3195 | Ford | Taurus | 1 | 1FAHP2L85DG130452 | 2013 | 99,572 | 22,600 |
| (NR) | 3301 | Ford | Escape | 1 | 1FMCU9GX5FUC06130 | 2015 | 52,637 | 22600 |
| (NR) | 4072 | Ford | F350 | 1 | 1FTRF3BN5MED52144 | 2021 | 1,215 | 56,700 |
| (ST) | Streetcar track | N/A | N/A | 1 | N/A | 2000 | N/A | N/A[b] |

Note: Vehicle mileage as of September 2022.

[a] *Asset Class is defined as:*
*(NR) – Non Revenue/Service Automobile*
*(ST) – Streetcar Tracks*

[b] *The replacement costs for the streetcar tracks are currently under review by KAT and will be updated as appropriate.*

*Source: Kenosha Area Transit, FTA, and SEWRPC*

## Table 2.3
## Kenosha Area Transit Facilities Inventory

| Asset Class | Asset Name | Count | Acquisition Year |
|---|---|---|---|
| Administration | Kenosha Area Transit Administration and Bus Garage | 1 | 2001 |
| Administration | Joseph McCarthy Transit Center | 1 | 2000 |
| Metra Station | Metra Station Elevator | 1 | 2006 |
| Metra Station | Metra Station Staircase | 1 | 2006 |
| Parking Lots | Lot #23 - 54th Street & 13th Avenue, Metra Station | 1 | 2006 |
| Parking Lots | Nine surface lots | 9 | 2001 |

*Source: Kenosha Area Transit, FTA, and SEWRPC*

# CONDITION ASSESSMENT 3

Recipients of Federal assistance, such as Kenosha Area Transit (KAT), are familiar with the useful life benchmarks for years and mileage that must be met in order to qualify for new vehicles as identified in FTA's Grant Administration Circular 5010.1E. In comparison, the useful life benchmark (ULB) for TAM planning evaluates an agency's assets based on the maximum number of years that a vehicle can operate at a full level of performance. Table 3.1 shows the difference between the minimum and maximum useful life benchmarks.

For the purposes of this TAM Plan, KAT utilized the maximum ULBs provided by the FTA in the Default Useful Life Benchmark (ULB) Cheat Sheet (October 2021). The ULBs allow KAT to track the performance of revenue vehicles (rolling stock) and service vehicles (equipment) and set their performance TAM measure targets. The ULBs provide an estimate of how many years each vehicle type can be in service and still be in a state of good repair. In addition, the ULB considers how long it is cost effective to operate an asset before ongoing maintenance costs outweigh replacement costs. When assessing conditions and useful life, KAT considers the historical maintenance records, manufacturer guidelines, and local operating environment. Specifically, transit vehicles in Southeastern Wisconsin operate in a climate that requires the use of road salt in the winter, resulting in greater impacts to the fleet such as corrosion. In addition, poor road conditions increase wear on vehicles, resulting in a reduction of vehicles operating in a state of good repair.

The condition summary of Kenosha Area Transit's revenue vehicles is provided in Table 3.2. Overall, approximately 30 percent of the revenue vehicles are past their useful life benchmarks, with 32 percent of buses and 67 percent of trolleybuses past their useful life. The seven heritage streetcars are within their useful life benchmarks. KAT has established streetcar maintenance procedures to ensure safety and reliability of the transit system. The streetcar tracks are in good condition and have not required speed restrictions to be placed on any segment of the 1.9-mile loop. The high percentage of revenue vehicles past the useful life benchmark is partially the result of KAT's purchase of previously owned buses to operate the supplemental school bus routes. The robust maintenance schedule, as further described in Chapter 4, Kenosha Area Transit's Maintenance Decision Support Tool, helps ensure the assets remain in a state of good repair with a standardized preventative maintenance schedule and software to track vehicle condition. Tables 3.3 through 3.5 include the condition assessments for all of Kenosha Area Transit's revenue vehicles, equipment and facilities and utilized the FTA Transit Economic Requirements Model (TERM) scale as provided in the *TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation.*

The Kenosha Area Transit System continues to make progress toward improving the condition of transit assets. Specifically, the number of revenue vehicles beyond their useful life benchmark decreased from 33 to 18, or from 47.1 percent to 30 percent. The number KAT's non-revenue service vehicles beyond their useful life benchmark remained the same with nine in 2018 and 2022. The condition of KAT's transit facilities remained the same. KAT will continue to track progress toward meeting the established TAM targets in order to maintain a state of good repair.

Despite the challenges operating transit systems during the COVID-19 pandemic, KAT continues to maximize the use of all available transit capital funds to maintain a state of good repair. Until recently, Federal funding has been below the historical average and State transit funding has not kept pace with inflation. In addition, the State limits the ability of local governments to replace these limited Federal and State funds with local property taxes through tax levy caps and prohibits the implementation of new revenue sources. Combined, these factors create additional challenges for KAT as they attempt to achieve and maintain a state of good repair. More permanent Federal support provided in the Infrastructure Investment and Jobs Act will allow transit operators, including KAT, to continue to improve transit services and meet or exceed TAM performance targets.

## Table 3.1
## Minimum and Maximum Useful Life Benchmarks

| Vehicle Type | Length | Age (Years) | |
|---|---|---|---|
| | | FTA Circular 5010.1E ULB (Minimum)[a] | TAM Plan ULB (Maximum)[b] |
| Buses | | | |
| Large, heavy-duty transit buses including over-the-road buses (approx. 35' or larger including articulated buses) | 35 feet or larger and articulated buses | 12 | 14 |
| Small size, heavy-duty transit buses | 30 feet | 10 | 14 |
| Medium-size, medium duty transit buses | 25 feet to 35 feet | 7 | 10 |
| Medium-size, light-duty transit buses | 25 feet to 35 feet | 5 | 14 |
| Trolleys | | | |
| A fixed guideway steel-wheeled "trolley" (streetcar or other light rail vehicle) | N/A | 25 | 31 |
| A fixed guideway electric trolley-bus with rubber tires obtaining power from overhead catenary | N/A | 15 | 13 |
| Simulated trolleys, with rubber tires and internal combustion engine (often termed "trolley-replica buses"). | N/A | 15 | 13 |
| Light Duty Vehicles | | | |
| Other light-duty vehicles used as equipment and to transport passengers (revenue service), such as cutaways, regular and specialized vans, sedans, and light-duty buses including all bus models exempt from testing in the current 40 CFR part 665 | 16 feet to 28 feet | 4 | 8 |

[a] *Minimum useful life as identified in FTA Circular 5010.1E, March 21, 2017, updated July 16, 2018. Minimum useful life is determined by years of service or accumulation of miles, whichever comes first, by asset type.*

[b] *Maximum useful life benchmarks set by FTA in the Default Useful Life Benchmark Cheat Sheet and the National Transit Database Policy Manual, Revenue Vehicle Default Useful Life Benchmarks. The maximum ULBs are provided for years of service only.*

*Source: Federal Transit Administration and SEWRPC*

## Table 3.2
## Kenosha Area Transit Revenue Vehicles Condition Summary

| Revenue Vehicles | Count | Average Age (Years) | Average Mileage | Average Value ($) | Past Useful Life Benchmark | |
|---|---|---|---|---|---|---|
| | | | | | Number | Percent |
| Bus | 50 | 11.3 | 401,368 | 560,000 | 16 | 32.0 |
| Trolleybus | 3 | 17.0 | 135,447 | 107,167 | 2 | 66.7 |
| Streetcar Heritage Trolley Cars | 7 | 17.6 | 70,060 | 73,000 | -- | -- |
| All Revenue Vehicles | 60 | 15.3 | 202,292 | 246,722 | 18 | 30.0 |

*Source: Kenosha Area Transit and SEWRPC*

## Table 3.3
## Kenosha Area Transit Revenue Vehicles Condition Assessment

| Asset Number | Count | ID/Serial No. | Age (Years) | Vehicle Mileage | Replacement Cost ($)[a] | Useful Life Benchmark (Years) | Past Useful Life Benchmark |
|---|---|---|---|---|---|---|---|
| **Buses** | | | | | | | |
| 3012 | 1 | 15GGE291641090917 | 18 | 394,527 | 560,000 | 14 | Yes |
| 3013 | 1 | 15GGE291841090918 | 18 | 425,435 | 560,000 | 14 | Yes |
| 3015 | 1 | 15GGE291641090920 | 18 | 383,931 | 560,000 | 14 | Yes |
| 3019 | 1 | 15GGE291341090924 | 18 | 401,578 | 560,000 | 14 | Yes |
| 3500 | 1 | 15GGB291441072859 | 18 | 510,424 | 560,000 | 14 | Yes |
| 3501 | 1 | 15GGB291X41074129 | 18 | 414,700 | 560,000 | 14 | Yes |
| 3502 | 1 | 15GGB291641074130 | 18 | 437,105 | 560,000 | 14 | Yes |
| 3503 | 1 | 15GGB291841074131 | 18 | 431,299 | 560,000 | 14 | Yes |
| 3506 | 1 | 15GGB291751074901 | 17 | 387,353 | 560,000 | 14 | Yes |
| 3507 | 1 | 15GGB291951074902 | 17 | 475,642 | 560,000 | 14 | Yes |
| 3508 | 1 | 15GGB291051074903 | 17 | 442,186 | 560,000 | 14 | Yes |
| 3509 | 1 | 15GGB291251074904 | 17 | 356,477 | 560,000 | 14 | Yes |
| 3510 | 1 | 15GGB291451074905 | 17 | 521,428 | 560,000 | 14 | Yes |
| 3511 | 1 | 15GGB291651074906 | 17 | 531,234 | 560,000 | 14 | Yes |
| 3512 | 1 | 15GGB291851074907 | 17 | 548,291 | 560,000 | 14 | Yes |
| 3513 | 1 | 15GGB291X51074908 | 17 | 555,625 | 560,000 | 14 | Yes |
| 3524 | 1 | 15GGB2716A1178535 | 12 | 289,210 | 560,000 | 14 | No |
| 3525 | 1 | 15GGB2718A1178536 | 12 | 369,079 | 560,000 | 14 | No |
| 3526 | 1 | 15GGB271XA1178537 | 12 | 330,627 | 560,000 | 14 | No |
| 3527 | 1 | 15GGB2713A1178538 | 12 | 361,017 | 560,000 | 14 | No |
| 3528 | 1 | 15GGB2713A1178539 | 12 | 356,236 | 560,000 | 14 | No |
| 3529 | 1 | 15GGB2717N3197475 | 0 | 14,723 | 560,000 | 14 | No |
| 3530 | 1 | 15GGB2719N3197476 | 0 | 9,804 | 560,000 | 14 | No |
| 4023 | 1 | 15GGD271991177000 | 13 | 313,107 | 560,000 | 14 | No |
| 4024 | 1 | 15GGD271091177001 | 13 | 312,729 | 560,000 | 14 | No |
| 4025 | 1 | 15GGD271291177002 | 13 | 314,393 | 560,000 | 14 | No |
| 4026 | 1 | 15GGD271491177003 | 13 | 331,404 | 560,000 | 14 | No |
| 4041 | 1 | 15GGD2714C1179308 | 10 | 224,933 | 560,000 | 14 | No |
| 4042 | 1 | 15GGD2716C1179309 | 10 | 287,376 | 560,000 | 14 | No |
| 4043 | 1 | 15GGD2712C1179310 | 10 | 281,984 | 560,000 | 14 | No |
| 4044 | 1 | 15GGD2715D1181862 | 9 | 272,934 | 560,000 | 14 | No |
| 4045 | 1 | 15GGD2717D1181863 | 9 | 253,509 | 560,000 | 14 | No |
| 4046 | 1 | 15GGD2719D1181864 | 9 | 292,979 | 560,000 | 14 | No |
| 4047 | 1 | 15GGD2710D1181865 | 9 | 295,741 | 560,000 | 14 | No |
| 4048 | 1 | 15GGD2712D1181866 | 9 | 306,163 | 560,000 | 14 | No |
| 4049 | 1 | 15GGD2714D1181867 | 9 | 264,029 | 560,000 | 14 | No |
| 4050 | 1 | 15GGD2716D1181868 | 9 | 311,978 | 560,000 | 14 | No |
| 4051 | 1 | 15GGD2710K3193113 | 3 | 121,334 | 560,000 | 14 | No |
| 4052 | 1 | 15GGD2712K3193114 | 3 | 126,160 | 560,000 | 14 | No |
| 4053 | 1 | 15GGD2714K3193115 | 6 | 132,805 | 560,000 | 14 | No |
| 4054 | 1 | 15GGD2716K3193116 | 3 | 117,648 | 560,000 | 14 | No |
| 4055 | 1 | 15GGD2718K3193117 | 3 | 137,613 | 560,000 | 14 | No |
| 4056 | 1 | 15GGD271XK3193119 | 3 | 123,015 | 560,000 | 14 | No |
| 4057 | 1 | 15GGD2712L3195723 | 2 | 61,771 | 560,000 | 14 | No |
| 4058 | 1 | 15GGD2714L3195724 | 2 | 72,933 | 560,000 | 14 | No |
| 4059 | 1 | 15GGD2716L3195725 | 2 | 73,056 | 560,000 | 14 | No |
| 4060 | 1 | 15GGD2718L3195726 | 2 | 62,357 | 560,000 | 14 | No |
| 4061 | 1 | 5FYD5FV01AB037434 | 12 | 524,830 | 560,000 | 14 | No |
| 4062 | 1 | 5FYD5FV03AB037483 | 12 | 571,736 | 560,000 | 14 | No |
| 4063 | 1 | 5FYD5FV07AB037499 | 12 | 586,969 | 560,000 | 14 | No |
| 4064 | 1 | 5FYD5FV04AB037508 | 12 | 540,001 | 560,000 | 14 | No |
| 4065 | 1 | 5FYD5FV09AB037486 | 12 | 546,309 | 560,000 | 14 | No |
| 4066 | 1 | 5FYD5FV01AB037496 | 12 | 568,453 | 560,000 | 14 | No |
| 4067 | 1 | 5FYDF5FV04AB037444 | 12 | 452,543 | 560,000 | 14 | No |
| 4068 | 1 | 5FYD5FV06BB038676 | 11 | 563,956 | 560,000 | 14 | No |

**Table continued on next page.**

## Table 3.3 (Continued)

| Asset Number | Count | ID/Serial No. | Age (Years) | Vehicle Mileage | Replacement Cost ($)[a] | Useful Life Benchmark (Years) | Past Useful Life Benchmark |
|---|---|---|---|---|---|---|---|
| **Buses (continued)** | | | | | | | |
| 4069 | 1 | 5FYD5FV02BB038688 | 11 | 577,105 | 560,000 | 14 | No |
| **Streetcars** | | | | | | | |
| 4606 | 1 | A-15PCC4606 | 22 | 71,644 | 73,000 | 31 | No |
| 4609 | 1 | A-15PCC4609 | 22 | 77,592 | 73,000 | 31 | No |
| 4610 | 1 | A-15PCC4610 | 22 | 95,111 | 73,000 | 31 | No |
| 4615 | 1 | A-15PCC4615 | 22 | 57,314 | 73,000 | 31 | No |
| 4616 | 1 | A-15PCC4616 | 22 | 75,731 | 73,000 | 31 | No |
| 4617 | 1 | A-15PCC4617 | 11 | 63,444 | 73,000 | 31 | No |
| 2185 | 1 | A-46PCC2185 | 11 | 49,584 | 73,000 | 31 | No |
| **Trolley Buses** | | | | | | | |
| 2439 | 1 | 2D9S21307W1070528 | 24 | 49,415 | 238,500 | 13 | Yes |
| 3369 | 1 | 2D9P22326X1070535 | 23 | 177,513 | 4,000 | 13 | Yes |
| 3415 | 1 | 4UZAB9DTXACAT2704 | 12 | 179,413 | 79,000 | 13 | No |

Note: Vehicle mileage as of September 2022.

[a] *Replacement cost represents the current cost to purchase the vehicle based on average actual bus purchases in the 2020 Public Transportation Vehicle Database published by the American Public Transportation Association. Costs will vary depending on equipment included in the bus build.*

*Source: Kenosha Area Transit, FTA, and SEWRPC*

## Table 3.4
## Kenosha Area Transit Equipment Condition Assessment

| Asset Class[a] | Asset Name/ Number | Count | ID/Serial No. | Age (Years) | Vehicle Mileage | Replacement Cost($) | Useful Life Benchmark (Years) | Past Useful Life Benchmark |
|---|---|---|---|---|---|---|---|---|
| (NR) | GMC, 1667 | 1 | 2GTEG25H7G452366B | 36 | 101,165 | 22,200 | 7 | Yes |
| (NR) | GMC, 2297 | 1 | 1GJGG35K0TF503706 | 26 | 107,191 | 22,200 | 7 | Yes |
| (NR) | GMC, 2402 | 1 | 1GTGK29RXWE528775 | 24 | 131,354 | 27,500 | 7 | Yes |
| (NR) | GMC C-AWAY, 2841 | 1 | 1GDJG31U661134142 | 16 | 53,709 | 36,400 | 7 | Yes |
| (NR) | Ford, 3071 | 1 | 1FDWF3HR7AEB37854 | 12 | 16,872 | 56,200 | 7 | Yes |
| (NR) | Ford, 3111 | 1 | 1FDRF3HT5BEB59958 | 11 | 15,031 | 56,700 | 7 | Yes |
| (NR) | Ford, 3302 | 1 | 1FMCU9GX5FUC06131 | 7 | 35,786 | 22,600 | 7 | Yes |
| (NR) | Ford, 3195 | 1 | 1FAHP2L85DG130452 | 9 | 99,572 | 22,600 | 7 | Yes |
| (NR) | Ford, 3301 | 1 | 1FMCU9GX5FUC06130 | 7 | 52,637 | 22,600 | 7 | Yes |
| (NR) | Ford, 4072 | 1 | 1FTRF3BN5MED52144 | 1 | 1,215 | 56,700 | 7 | No |
| (ST) | Streetcar track | 1 | N/A | 22 | N/A | N/A[b] | N/A | No |

[a] *Asset Class is defined as:*
*(NR) – Non Revenue/Service Automobile*
*(ST) – Streetcar tracks*

[b] *The replacement values/costs for the streetcar track is currently under review by KAT and will be updated as appropriate.*

*Source: Kenosha Area Transit, FTA, and SEWRPC*

## Table 3.5
## Kenosha Area Transit Facilities Condition Assessment

| Asset Class | Asset Name | Count | Age (Years) | TERM Scale Condition |
|---|---|---|---|---|
| Administration | Joseph McCarthy Transit Center | 1 | 21 | 4 |
| Administration | Kenosha Area Transit Administration and Bus Garage | 1 | 22 | 4 |
| Metra Station | Metra Station Elevator | 1 | 16 | 4 |
| Metra Station | Metra Station Staircase | 1 | 16 | 4 |
| Parking Lots | Lot #23 - 54th Street & 13th Avenue, Metra Station | 1 | 16 | 4 |
| Parking Lots | Nine surface lots | 9 | 21 | 4 |

*Source: Kenosha Area Transit, FTA, and SEWRPC*

# KENOSHA AREA TRANSIT'S MAINTENANCE DECISION SUPPORT TOOL 4

Kenosha Area Transit (KAT) has established *Standard Operating Procedures for Maintenance* that identifies the guidelines and procedures for equipment maintenance, operation, and management for all Kenosha Area Transit facilities. It also includes staff responsibilities and training expectations for employees. The following discussion summarizes the standard operating procedures for transit vehicles and equipment, streetcar assets, and transit facilities.

As part of their maintenance protocol, KAT uses the Transfleet software to monitor their vehicle maintenance and inventory. Specifically, the program tracks the vehicle maintenance history and information for each vehicle in the fleet, ensuring that the scheduled preventative maintenance occurs in a timely manner, and that any unscheduled repairs are documented and appropriately assigned.

## 4.1 TRANSIT VEHICLE AND EQUIPMENT STANDARD OPERATING PROCEDURES

KAT has a program of scheduled preventative maintenance and inspections for various elements of the transit assets. These programs are based on time, distance, or reliability trends to ensure that maintenance is performed on a regular basis. The cycle of preventative maintenance is consistent with equipment manuals, specifications and actual experience in Kenosha. Preventative maintenance and inspections are performed to keep all transit assets in a state of good repair and to identify any potential failures.

The preventative maintenance schedule is shown in Table 4.1. The schedule and checklist for each service is based on the manufacturer's recommendations and was further developed by Kenosha Area Transit. The vehicle mileage is recorded by the driver each shift, and by the service attendants when they add fuel to a vehicle. The mileage entries are uploaded to the maintenance software daily Monday through Friday. The service due list is generated by the maintenance software, and it is posted weekly. Services are performed within 600 miles before or after when the service is due.

Drivers are required to report any damage or wear to dispatch, who passes the information to the maintenance staff. The Lead Mechanic or supervisor will make note of the faults in the daily log, place the bus out of service if needed, and assign the repair to a mechanic for further evaluation and repair. Unscheduled repairs are assigned according to mechanic availability, parts available, time needed to complete the repair, and the priority of the workload for each day.

## 4.2 STREETCAR MAINTENANCE STANDARD OPERATING PROCEDURES

Maintenance procedures are in place for the Kenosha Transit Electric Streetcar to reflect both unscheduled and scheduled maintenance requirements. These procedures address and support the safety and reliability of the system. The procedures are based on the maintenance process established by the original operator of the PCC cars and modified to reflect service requirements in Kenosha. These procedures are further supported by those developed by the Southeastern Pennsylvania Transportation Authority (SEPTA) and other PCC operators.

Kenosha Area Transit has established maintenance standards that incorporate preventative and corrective action measures for the system. The purpose of the streetcar maintenance procedures is to provide the maintenance and support necessary to provide a safe, reliable, and cost effective rail service to the City of Kenosha and the Harbor Park development. The maintenance procedures ensure a progressive maintenance plan for routine maintenance activities as the system evolves. The streetcar maintenance procedures are carried out by the Rail Maintenance Section. The Streetcar Maintenance standard operating procedures include the following activities:

- Inspection or Preventative Maintenance – Those activities to be performed on a schedule to ensure operations and prolonging the useful life of the equipment and facilities

**Table 4.1**
**Kenosha Area Transit Service Schedule and Checklist**

| Service | Interval when Service Occurs (Miles) | Preventive Maintenance Activities |
|---|---|---|
| Service A | 6,000 | Oil change with filter<br>New coolant filter<br>New air filter on any 2010+ bus |
| Service B | 18,000 | Oil change with filter<br>New coolant filter<br>New air filter<br>Power steering reservoir flush and new filter |
| Service C | 36,000 | Oil change with filter<br>New coolant filter<br>New air filter<br>Power steering reservoir flush and new filter<br>Transmission flush with new filters<br>Check engine coolant condition |

Note: The services are performed in the order AABAAC (A=6,000 miles, A=12,000 miles, B=18,000 miles, A = 24,000 miles, A=30,000 miles, C=36,000 miles.

*Source: Kenosha Area Transit*

- Corrective or Unscheduled Maintenance – Demand responsive actions that impact operations or safety, including in-service failures or required repairs that were not scheduled
- Testing – Often accomplished with contracted services due to special test equipment requirements
- Programmed Maintenance – Includes overhauls and major rehabilitation
- General Maintenance – Includes servicing and cleaning

The streetcar maintenance plan provides a program of scheduled preventative maintenance and inspections for system elements, including: rolling stock, overhead contact wire, substations, and power distribution; the 1.9 mile loop consisting of ballasted track, embedded track, and special track work or switches; communications, fare collection equipment, platforms and shelters, and the shop building and office. The preventative maintenance programs are based on time, distance, or reliability trends to ensure that maintenance is performed on a regular routine basis. The cycle of preventative maintenance is consistent with the equipment manuals, specifications, and actual experience of KAT staff. Preventative maintenance and inspections are performed to keep all system elements in a state of good repair and to identify any failures.

Since the streetcar vehicles are no longer manufactured, a spare parts supply and re-supply is an important part of maintaining a state of good repair. In response to this need, KAT has established an inventory control program. This program includes the purchase and inventory of streetcars, used trucks, spare parts, and equipment. KAT has also established a computer network with other PCC operators and museums to exchange information on spare parts. When feasible, KAT will jointly purchase parts. KAT also has a library of maintenance manuals that are used to ensure that the remanufacture or rebuild of parts and components meet or exceed specifications.

## 4.3 FACILITY MAINTENANCE STANDARD OPERATING PROCEDURES

The buildings included in the Transit Asset inventory (Operations and Maintenance Facility and the McCarthy Transit Center) are inspected quarterly by service personnel in an effort to keep them well maintained. The inspections provide documentation of any mechanical or cosmetic fault. The inspection includes facility security equipment including video and alarm systems. The Maintenance Supervisor schedules outside contractors to conduct yearly inspections of bus lifts, HVAC systems, backup generator, alarm systems, fuel storage systems, and fire extinguishers. The buildings' mechanical items are repaired as soon as is practicable.

# PRIORITIZED LIST OF INVESTMENTS 5

On an annual basis, Kenosha Area Transit (KAT) will perform an investment prioritization analysis to determine which transit assets are needed, the quantity of each asset type required, and in what order to maintain and improve the state of repair. For the most recent year, KAT has incorporated a list of project requests within the City of Kenosha's 2021-2025 Capital Improvement Plan, which was adopted December 2, 2020. The current Capital Improvement Plan requests two buses per year over the next five years. As funding becomes available, KAT maintenance staff will assess the current condition of each vehicle and based on their judgment and in consultation with the Accountable Executive, will determine which buses will be replaced in order to improve the state of good repair of the transit assets.

The following projects are included in the adopted 2021-2025 Capital Improvement Plan:

- Project TR-93-010: Requested $1,000,000 in funding to replace old buses that have passed their useful life. The CIP states that the justification is "the normal replacement cycle for buses is usually 12 years or 500,000 miles of use. At the present time, we will have numerous buses exceeding this life cycle. Besides, the new transit Asset Management policy requires that we purchase new buses to replace aging buses."
- Project TR-18-004: Requested $450,000 to update transit parking lots by resurfacing, stripping, and improvement of the drainage system.
- TR-20-001: Requested $30,000 for a new bus surveillance system.
- TR-20-002: Requested $30,000 for the purchase of radios and equipment for buses.
- TR-20-003: Requested $40,000 for new transit equipment and maintenance software.
- TR-20-004: Requested $70,000 for a new floor sweeper in the transit garage.
- TR-20-005: Replacement of an old cutaway van that has exceeded its useful life at an estimated cost of $75,000.
- TR-20-006: Requested $150,000 for a GPS system to track bus departure and arrival times.
- TR-21-001: Requested $50,000 for a security camera system upgrade.
- TR-21-002: Requested $50,000 for maintenance to the downtown parking structure.
- TR-21-003: Requested $50,000 for technology equipment.
- TR-21-004: Requested $80,000 for improvements to the downtown transfer center parking lot.
- TR-21-005: Requested $80,000 for a vehicle replacement.
- TR-21-006: Requested $100,000 for the transit building roof replacement.
- TR-21-007: Requested $100,000 for the streetcar barn roof replacement.
- TR-21-008: Requested $100,000 for the transit building HVAC system.
- TR-21-009: Requested $100,000 for improvements to the Kenosha Transit parking lot.

# TRANSIT ASSET MANAGEMENT AND STATE OF GOOD REPAIR POLICY

# 6

Kenosha Area Transit's (KAT) State of Good Repair (SGR) Policy adheres to the following standards for measuring the condition of capital assets, pursuant to CFR 625.41.

A capital asset is in a state of good repair when each of the following objective standards are met:

1. If the asset is in a condition sufficient for the asset to operate at a full level of performance. An individual capital asset may operate at a full level of performance regardless of whether or not other capital assets within a public transportation system are in a SGR;

2. The asset is able to perform its manufactured design function;

3. The use of the asset in its current condition does not pose an identified unacceptable safety risk and/or deny accessibility; and

4. The asset's life-cycle investment needs have been met or recovered, including all scheduled maintenance, rehabilitation, and replacement (useful life benchmarks).

The TAM policy and the maintenance protocols described within this TAM Plan allow KAT to anticipate and plan for capital needs. This policy supports the TAM strategy and actions that support its implementation, including the maintenance procedures outlines in KAT's *Standard Operating Procedures for Maintenance* documentation described in detail in Chapter 4, Kenosha Area Transit's Maintenance Decision Support Tool.

# IMPLEMENTATION AND STRATEGY 7

The Kenosha Area Transit's (KAT) TAM strategy is to continue implementing the maintenance standard operating procedures for all transit assets as established in the *Standard Operating Procedures for Maintenance*. KAT has a goal to replace two buses each year for a budgeted cost of $900,000 annually and is on a schedule to replace the streetcar "trucks" after 14 years of service.

Over time, KAT may consider reducing their total fleet size in response to funding constraints and the age of the fleet. This would result in retiring the oldest vehicles that are past their useful life. The retirement strategy along with the goal of replacing two buses per year will help KAT maintain and improve their state of repair.

KAT will consider purchasing electric buses in the future. The initial capital cost of electric buses can range from $620,000 to $1,500,000 depending on equipment included in the bus build (e.g., fareboxes, passenger counters, message signs, and radios).[2] However, capital costs are expected to drop over time as the technology evolves and orders for the buses increase creating economies of scale. In addition, experience nationally has shown that electric vehicles result in lower overall operation and maintenance costs.

[2] *American Public Transportation Association, 2020 Public Transportation Vehicle Database.*

# LIST OF KEY ANNUAL ACTIVITIES 8

Kenosha Area Transit (KAT) will continue to maintain all supporting TAM Plan records and documents, providing them to FTA, WisDOT, and SEWRPC as requested. This includes carrying out the activities and report keeping identified in the Standard Operating Procedures for Maintenance. KAT will also continue tracking and maintaining their current transit assets to maintain and improve their current state of repair.

In addition, KAT will continue to report, on an annual basis, to the FTA's National Transit Database the following information:

- Inventory of transit assets
- State of good repair performance targets for the next fiscal year
- Condition inspection assessments and performance measures of capital assets
- An annual narrative that provides a description of any change in the condition of KAT's system or operations from the previous year, and describe the progress made during the reporting year to meet the performance targets set in the previous reporting year

# IDENTIFICATION OF RESOURCES 9

There are a number of key Kenosha Area Transit (KAT) staff in charge of developing and carrying out the transit asset management plan. The key transit asset management staff includes the Director of Transit and Parking who serves as the Accountable Executive and the maintenance staff that is led by one mechanic supervisor who reports directly to the Director. The bus repair section is assigned five full time mechanics classified as Mechanic II, one part-time mechanic classified as Mechanic II, three full-time Service Technicians, and one part-time bus driver conducting ground maintenance. The rail vehicle section has one streetcar mechanic and receives assistance from utility workers. Due to the tight labor market for qualified mechanics, KAT has experienced challenges in maintaining vehicles in a state of good repair when they are beyond their useful life. Kenosha Area Transit may consider options to enhance recruitment and retention of staff in order to carry out the TAM Plan. The upcoming Transit Development Plan is anticipated to consider staffing needs for transit operations based on peer organizations and national research.

The following staff will carry out the activities required in their commitment to maintain the vehicles, facilities, and equipment in the best condition possible.

**Director:**

- Directly responsible for the maintenance of all KAT property equipment
- Ensures Out of Service equipment is either back in service within 72 hours or have corrective actions (e.g., parts requested or equipment sent out to a contracted facility for repair) to ensure equipment can be returned to service at the earliest possible date
- Is prepared to brief the Mayor, City Administrator, Common Council, and Transit Commission, at all times on the status of maintenance within the property
- Ensures mechanic supervisor position is filled and the person is properly trained
- Ensures that the mechanic supervisor provides a brief of the maintenance status to the director daily
- Ensures the property maintenance policy is established, reviewed and approved by the director

**Mechanic Supervisor:**

- Monitors the maintenance and equipment status within the property
- Monitors the disposal of all hazardous waste and materials
- Intensely manages all out of service equipment repair
- Aggressively monitors all equipment sent to any outside contracted shop for repair
- Monitors any oil analysis performed
- Monitors the repair parts stock, locations, and the parts funds for maintenance
- Provides technical and administrative assistance on equipment maintenance
- Keeps the Director informed on all maintenance issues and out of service equipment
- Ensures that safe maintenance operations are conducted
- Develops and implements a quality control program to ensure safety and reliability of all equipment

**Operations Supervisor:**

- Supervises operations and work flow
- Oversees safety and security

**Senior Mechanic on Duty:**

- The Senior Mechanic on shift at each property location is to assume this position
- Assumes the duties of the mechanic supervisor in their absence
- Monitors quality control procedures for all maintenance repairs
- Supervises shop operations and ensure that all repairs are performed safely and correctly by all shop personnel

**Mechanic:**

- Completes repair and service of equipment, as assigned, within manufacturers' guidelines
- Maintains the areas of responsibilities assigned within the shop
- Ensures quality control procedures are followed
- Ensures all equipment is used safely, within the guidelines of the manufacturer and with all appropriate safety equipment (e.g., jack stands, hearing protection, eye protection)
- Assumes the role of Senior Mechanic on Duty when required

**Dispatcher:**

- Ensures vehicles assigned to drivers are not coded out of service
- Reports road calls to maintenance shop, to include: location, direction, reported fault, vehicle number, replacement vehicle number, and any other pertinent information
- Ensures drivers properly fill out Operators Report
- Provides completed Operators Report to the maintenance section in a timely manner
- Inspects buses for damage when they return to the building and immediately reports any new damage to maintenance

**Route Supervisor:**

- Ensures all drivers are properly licensed and trained on the equipment they are assigned to operate
- Establishes and implements a pre-trip inspection policy, and a policy to properly report all vehicle deficiencies
- Monitors drivers performance to ensure training is adequate and polices are followed, and safety awards are noted and presented
- Responds to accidents. Completes accident documentation and facilitate driver drug testing where applicable and in accordance with KAT insurance requirements

**Driver:**

- Conducts pre-trip inspection of vehicle
- Reports potential out of service deficiencies to dispatch prior to beginning route, and does not begin route with out of service vehicle
- Ensures all required equipment is present and in usable condition on the vehicle prior to trip
- Properly completes and submits the Operator Report to dispatch

**Service Technician:**

- Ensures all vehicles are regularly checked after use to ensure: fuel and all fluids checked, filled as needed, and the vehicle is cleaned as needed
- Ensures facilities and grounds are checked for cleanliness and serviceability
- Performs facility cleaning and repair as needed and reports any need for repair or cleaning that cannot be immediately performed to management