For Board Meeting of September 27, 2018
Agenda Item No. H.3 Resolution 2018-07
Adoption of the TAM Policy 119 (TAM Plan)

VERSION [DRAFT 0.3]

SEPTEMBER 20, 2018

SUPPLEMENTAL AGENDA PACKET

Submitted to:

CHERRIOTS

SALEM AREA MASS TRANSIT DISTRICT
TRANSIT ASSET MANAGEMENT PLAN

Submitted by:

ABB
ENTERPRISE SOFTWARE

DOCUMENT CONTROL HISTORY

Version	Document Title	Date	Comments
0.1	Transit Asset Management Plan	8/31/2018	ABB Initial Draft
0.2			Reviewed and extended Funding section.
0.3		9/20/2018	Completed Draft, with Appendices

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INTRODUCTION AND AGENCY OVERVIEW

Salem Area Mass Transit District, more commonly known as Cherriots, is a transit district based in Salem, Oregon. Cherriots provides weekday bus and paratransit service in Salem and neighboring Keizer, as well as to Marion and Polk counties. Salem Area Mass Transit District was established by the State of Oregon in 1979. Before then, the City of Salem operated bus service under the name Cherriots.

The population of Salem's urbanized area is around 236,000 along Interstate 5 and the population of the overall Cherriots service area is around 410,000, covering 76 square miles in the Willamette Valley of Oregon. In Fiscal Year 2016, annual Cherriots ridership between all services was just over 3.6 million, averaging 14,300 rides per day. Bus service operates with 53 peak vehicles. There are an additional 43 vehicles dedicated to providing Cherriots LIFT paratransit service.

Cherriots is governed by a seven-member, elected Board of Directors and provides service in both Marion and Polk counties. Salem is the Capital of Oregon, and the Salem-Keizer urbanized area is situated 47 miles south of Portland and 64 miles north of Eugene.

The range of Cherriots urban local fixed-route and commuter bus service, rural commuter express service, paratransit service, and dial-a-ride service specific to seniors and individuals with disabilities, provide approximately 3.6 million passenger trips annually. All Cherriots services operate Monday through Friday, 6:00 a.m. to 9:00 p.m., with no weekend service currently (Although this is scheduled to be introduced by September 2019).

Cherriots local fixed-route bus services are primarily offered within the Salem-Keizer Urban Growth Boundary (UGB), as defined by state statute. The Cherriots Regional service connects the Salem-Keizer area with the city of Wilsonville to the north, where riders can directly access the Portland metropolitan area, as well as to surrounding, rural communities in Marion, Polk, Linn, Yamhill, and Clackamas counties. The population served by Cherriots full range of services is well over 500,000.

Cherriots mission is to connect people with places through safe, friendly, and reliable public transportation services. With 21 Cherriots local routes, fixed-route service provides regularly-scheduled transit service connecting workforce centers, a multitude of medical and health care services, senior centers, continuing education establishments, and shopping districts. Cherriots partners with outlying communities to provide commuter express services that bring people directly from outlying areas to the critical services offered within the cities of Salem and Keizer.

Salem is the state capital and the county seat of Marion County. Cherriots operates specific routes that are aimed at providing transportation to large work centers, such as the Capitol Mall, Chemeketa Community College, and Salem Hospital. One of the busiest corridors of the city, Lancaster Drive, is home to malls and retail facilities. These are large employment providers and generate jobs for economically-disadvantaged individuals. The most popular destination of transit riders in east Salem is Chemeketa Community College, another large employer and the local community college.

The population of Cherriots service area grew 14.2 percent from 2000 to 2010, and is anticipated to grow at the same rate in future years. Approximately 58 percent of Cherriots riders do not have access to a vehicle, compared to 39 percent of neighboring TriMet riders and 29.4 percent of Lane Transit District's riders.

While economic growth is slowly returning to the Salem-Keizer area, 29.4 percent of the residents of Marion and Polk counties still live below 150 percent of the federal poverty line and are considered "low-income" compared to 24.9% nationally.

Cherriots LIFT service provides complementary paratransit service under the Americans with Disabilities Act (ADA) within the UGB. Cherriots Shop and Ride is a shopper shuttle and dial-a-ride service available to seniors 60+ and individuals with disabilities with no required qualification. Cherriots operates Cherriots Regional providing commuter express and flex-route service in rural Marion, Polk, and Linn counties. Cherriots Trip Choice promotes and coordinates easy and cost-effective transportation options throughout Marion, Polk, and Yamhill counties. It offers information and coordination for carpooling, vanpooling, public transit, bicycling, walking, and telecommuting.

Cherriots serves the largest public and private employers in Salem. These are the State of Oregon offices (21,000 employees) and Salem Health (4,000 employees) respectively. A March 2014 comprehensive service analysis report identified 85% of jobs are located within a quarter mile of any bus stop in Cherriots transit service network. Focusing jobs, housing, and services to best take advantage of the Cherriots transit system ultimately will reduce the need to drive, therefore, enriching the lives of the community.

Cherriots operates local bus service in the Salem-Keizer area. Other services Cherriots provides are Cherriots Regional, Cherriots LIFT, and Cherriots Shop and Ride (see below). In addition to operating service, Cherriots offers travel training to riders and runs the Cherriots Trip Choice program – helping connect riders with transportation options, including transit, carpools and vanpools, biking, and walking.

Cherriots

Local bus routes serve local streets in the Salem-Keizer area, providing service within the Salem-Keizer UGB (Figure 1).

Cherriots Regional

Regional express routes provide bus service between towns and cities mostly in Marion and Polk counties. Additionally, Cherriots provides the Polk County Flex, an origin-to-destination service in Dallas, Monmouth, and Independence (Figure 2).

Cherriots LIFT

Origin-to-destination paratransit service provides rides to those who are unable to access regular bus service. LIFT serves the Salem-Keizer UGB. Riders must be found eligible and trips must be scheduled in advance. During Fiscal Year 2017, Cherriots provided 140,875 LIFT rides. Cherriots Contracted Services Department is part of the Operations Division, which includes Cherriots LIFT, Regional, and Shop and Ride services. The LIFT service is expressed in all caps to distinguish the program name from the vehicle lifts. LIFT is not an acronym. Cherriots operates

LIFT service through a contract with a private-sector company, which provides staff for the operation of the vehicles. Cherriots owns and maintains the LIFT vehicles operated by the private company. Cherriots LIFT trips are reserved through the Cherriots Call Center, formerly known as Trip Link, which is also operated by a private-sector company. Cherriots provides the facility and all equipment to the Call Center. Cherriots additionally contracts with a private-sector company for Cherriots LIFT eligibility determinations. Cherriots is responsible for program, contract, and operations management for the LIFT transportation service, Call Center, and LIFT Eligibility.

Cherriots Shop and Ride

Shop and Ride includes both a shopper shuttle and origin-to-destination dial-a-ride service for seniors and individuals with disabilities who may not qualify for ADA service. This service operates throughout the Salem-Keizer UGB, and trips must be scheduled in advance.

Figure 1 – Service Area

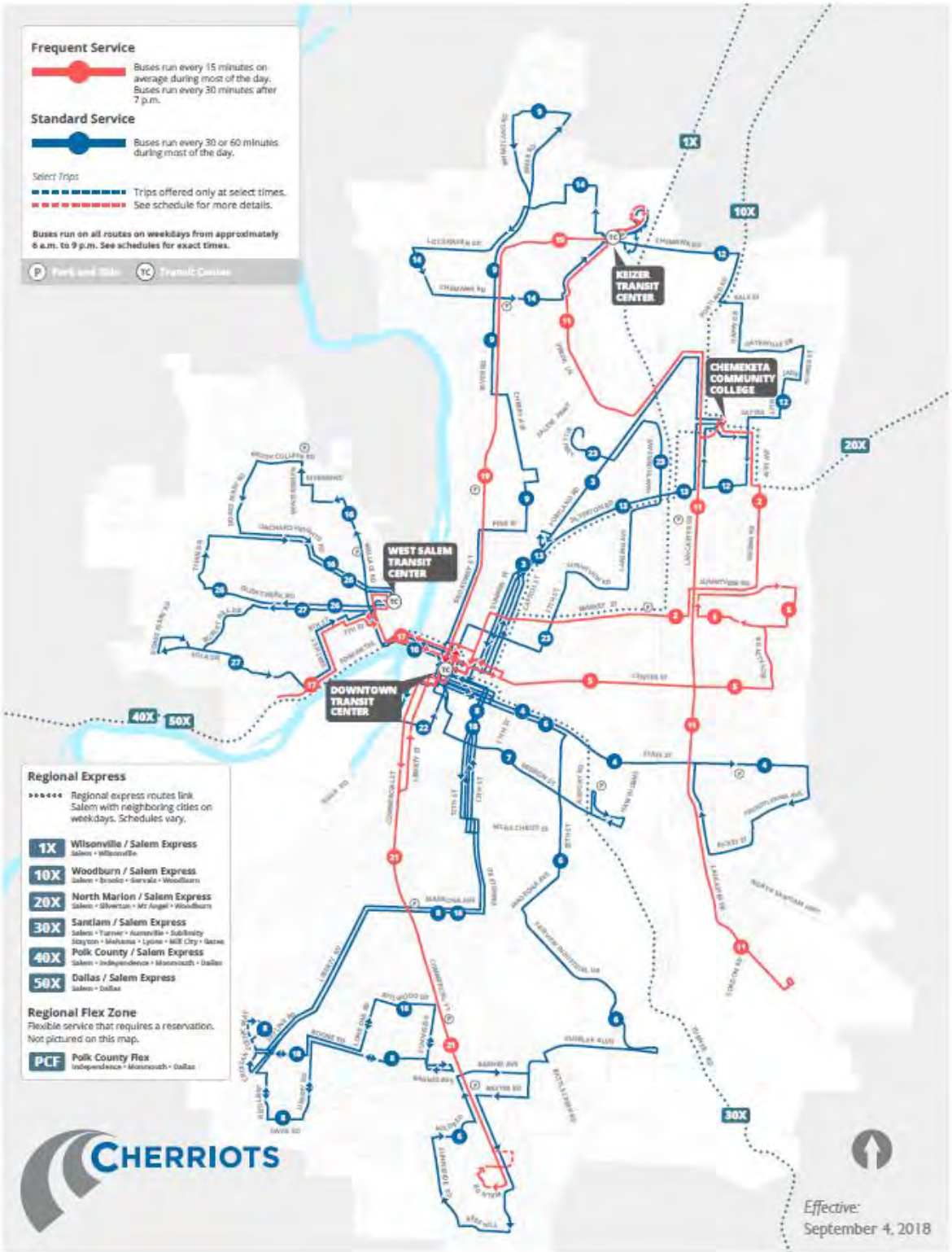
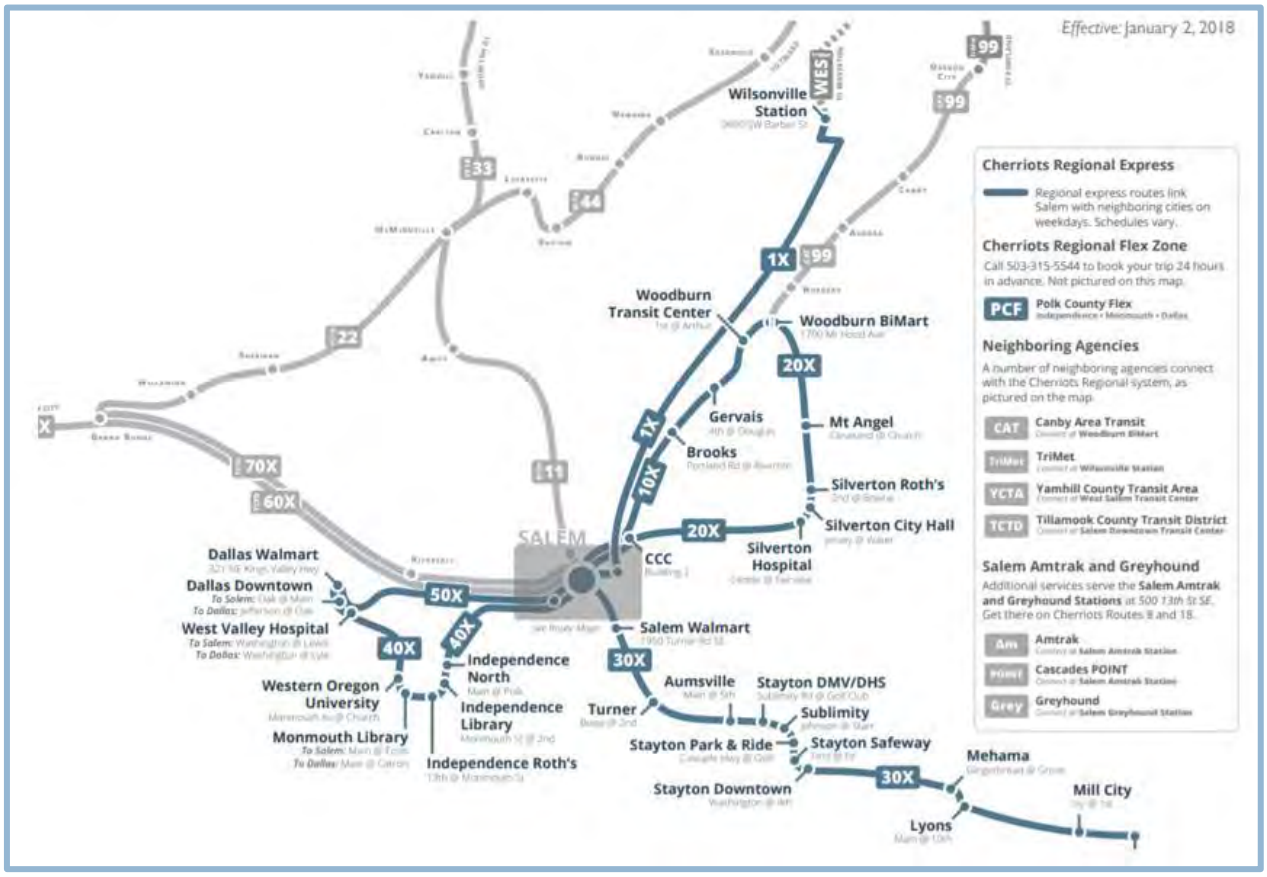


Figure 2 – Regional Routes



This TAM Plan establishes several overarching objectives and strategies aligned to Cherriots' Mission and Organizational Goals shown in Table 1. This TAM Plan further establishes a series of performance measures to track progress in the attainment of these objectives. While most of these performance measures are currently in use at Cherriots, future versions of this TAM Plan will capture more meaningful and complex performance measures as Cherriots' performance management capabilities mature.

Table 1 – Mission and Organizational Goals Alignment with TAM Strategies

"Connecting people with places through safe, friendly and reliable public transportation services"			
Commitment	**Goal(s)**		**TAM Strategies**
Safety	Create and foster a safety culture to reduce safety risks, accidents and incidents		• Maintain a complete and accurate asset inventory • Monitor asset condition • Employ enterprise-wide risk management approach • Employ risk-based prioritization for asset investments • Employ sustainable asset management strategies that align with asset management policy • Optimize preventive maintenance of assets with life-cycle management • Employ total cost of ownership in investment strategy • Enhance agency-wide methods of communication and transparency
Service Excellence	Provide Quality and Reliable service		
Communications	Effective Communication, Messaging and Marketing		
Innovation	Cherriots will consider and implement innovative solutions to improve both the services and systems that support them.		
Accountability	Transparency and accountability to internal and external stakeholders as regards policy, strategy, planning and budgeting		

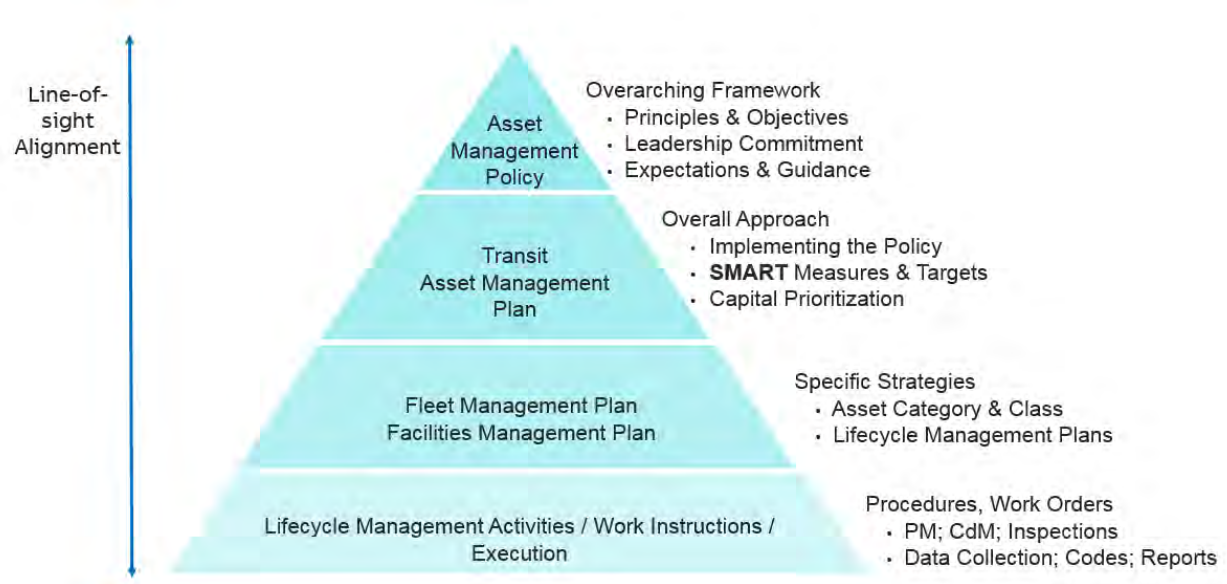
Each of the strategies identified above are either implemented or scheduled for implementation, aimed at incrementally driving Cherriots towards its TAM objectives and a more mature asset management system.

LIFECYCLE MANAGEMENT AND DOCUMENTATION HIERARCHY

The implementation of this TAM Plan is supported by a Fleet Maintenance Plan and a Facilities Maintenance Plan (FMPs). These FMPs, as shown in Figure 3 play a pivotal role in the organization's business processes and, provide specific guidance for managing the Fleet and Facilities to align with this TAM Plan and define Specific, Measurable, Achievable, Relevant and Time-Bound (SMART) objectives and measures.

Additionally, the FMPs identify Preventive Maintenance Tasks, Standard Operating Procedures and, other routine activities performed to ensure consistent life-cycle management at the individual asset and asset class level. These activities all align with Cherriots' organizational goals and objectives and, provide "Line-of-Sight" alignment for the entire organization to ensure a consistent collection and analysis of data as a fundamental element of Cherriots' implementation approach.

Figure 3 – TAM Documentation Hierarchy



INTEGRATED APPROACH TO ENSURE SUCCESSFUL OUTCOMES

As shown above, this document hierarchy defines the structure for this "Line-of-Sight," helping front line employees to better understand how their daily job functions translate into delivery of Cherriots' executive/strategic goals and underscores the sense of ownership throughout the organization.

CONTINUAL EVALUATION AND IMPROVEMENT

Federal Regulations require that the TAM Plan be updated at least once every four years (Plan horizon) at a minimum, however Cherriots will review and revise this TAM Plan and the FMPs as necessary on an annual basis, or if events or changing business conditions dictate the need.

Going forward, as part of Cherriots' coordinated agency wide planning process, these reviews will be coordinated with other District Policies, Plans and Procedures.

Additionally, as a matter of best practice, Cherriots will continually improve our business processes and maturity by building upon performance reviews and lessons learned. This will reinforce stakeholder accountability and ensure "Top-Down and "Bottom-Up" culture.

1. TAM INTRODUCTION

TRANSIT ASSET MANAGEMENT AT CHERRIOTS

Cherriots has developed a TAM Plan that is intended to not only ensure that our assets are maintained in a State-of-Good-Repair (SGR), but also help to enhance our operations by providing safe, frequent and reliable service.

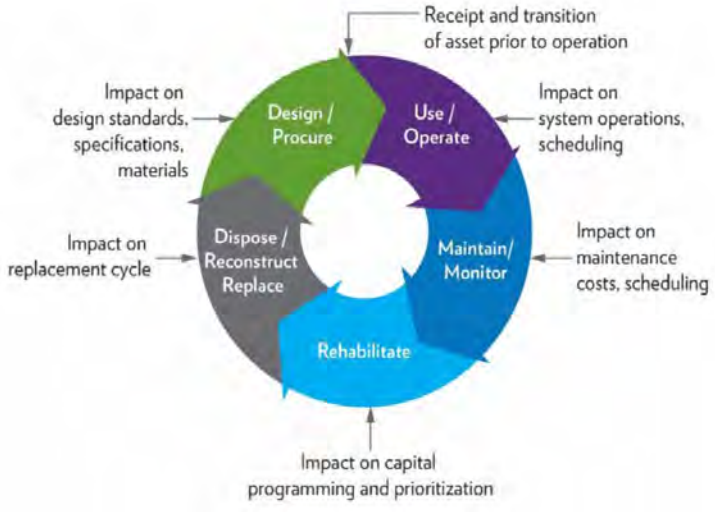
Using a lifecycle management process, Cherriots maintains its fleet and facilities to protect its investment and prolong the useful life of its assets to the highest standards financially feasible. Service of the highest quality to our customers is achieved by efficiently operating support programs to maintain the equipment's lifecycle and employ effective management practices

TAM APPROACH

This Plan sets forth Cherriots' approach to improving our TAM capabilities in compliance with requirements initially established by the Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012 and further defined by the Federal Transit Administration's (FTA's) Final Rule on TAM (49 CFR 625 and 630). Known as the TAM Plan, this master document sets agency-wide objectives and strategies for delivering all commitments in Cherriots' TAM Policy and its mission. In addition, this TAM Plan identifies priority projects to improve Cherriots' TAM capabilities across the agency, and, by reference, specifies the lifecycle management activities outlined in the Fleet- and Facilities Maintenance Plans for each department that is responsible for the operations and/or maintenance of a given Asset Class.

Cherriots' business *is* Transit Asset Management. Cherriots exists to deliver safe, efficient, and reliable transportation with world class customer service within the limitations of its resources. To do this, Cherriots must continually improve its management of fleet and facilities. When executed properly with dedicated resources, TAM improves coordination of *all* departments across *all* phases of an asset's lifecycle (as shown in Figure 4) to manage assets more efficiently.

Figure 4- Typical Lifecycle Phases of a Transit Asset



Accordingly, this TAM Plan aims to optimize the costs, risks, and performance of the transit system, and provide a range of benefits to Cherriots through an ongoing Planning effort as depicted in Figure 5. And, to enhance Cherriots' ability to communicate with the public and legislators about the benefits of investing in the transit system and the consequences of underinvestment.

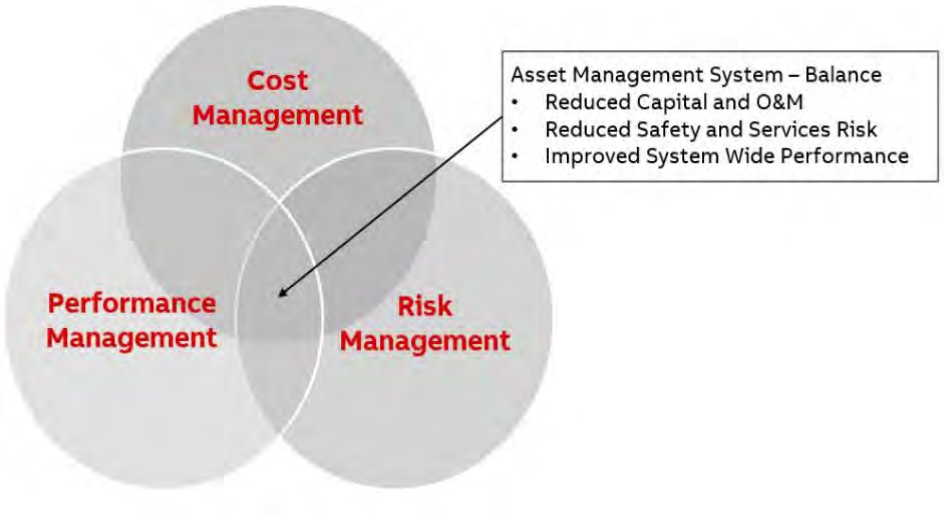
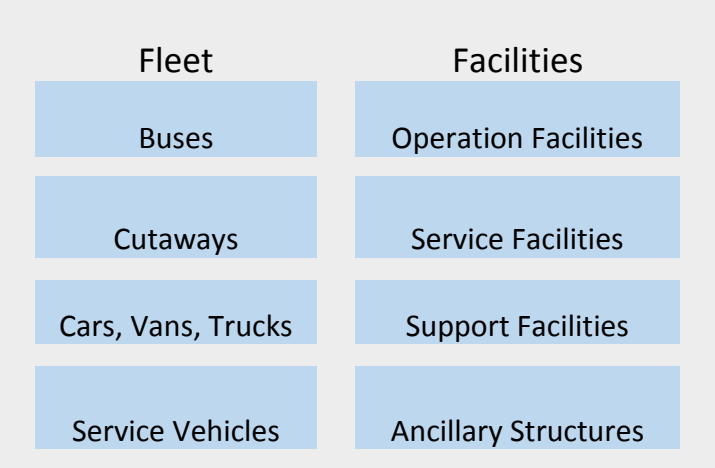


Figure 5 – Asset Management Optimizes Cost, Performance, and Risk

Federal regulations currently require that all assets used in the provision of public transit be subject to this TAM Plan. Industry best practices suggest that the scope of this TAM Plan be expanded to include all Transit Assets and Land Assets procured through Cherriots' capital program. Land Assets are included in the scope of Cherriots' inventory as part of current practice. Although acquisition and maintenance of these assets compete for the same capital dollars, the TAM Plan is not currently proposing any changes to the strategy for managing land assets. Accordingly, this TAM Plan includes objectives and strategies to optimize the management of Fleet and Facilities Assets which align with FTA reporting requirements for the National Transit Database (NTD). Figure 6 illustrates the hierarchy of Cherriots' asset categories and asset classes.

Figure 6 – Cherriots' Asset Hierarchy: Categories and Classes



1.1 FEDERAL TAM REQUIREMENTS

1.1.1 OVERVIEW

As part of MAP-21 and the subsequent *Fixing America's Surface Transportation* (FAST) Act, the FTA has enacted regulations for transit asset management that require transit service providers to establish asset management performance measures and targets, and develop a TAM Plan.

The final TAM Rule was published on July 26, 2016 and went into effect on October 1, 2016. The rule itself amended the United States (U.S.) Code of Federal Regulations (CFR) Title 49 Parts 625 and 630, which relate to TAM and the NTD respectively. The TAM Final Rule distinguishes requirements between larger and smaller or rural transit agencies:

Tier I provider:

- "Owns, operates, or manages either 101 or more vehicles in revenue service during peak regular service or in any one non-fixed route mode" Or,
- "Operates rail transit."

Tier II provider:

- "Owns, operates, or manages 100 or fewer vehicles in revenue service during peak regular service across all non-rail fixed route modes or, in any one non-fixed route mode," Or,
- "Is a subrecipient under the 5311 Rural Area Formula Program," Or,
- "Is any American Indian tribe."

Based on these criteria, and the type of service provided, Cherriots is a Tier 2 provider as identified in the TAM Final Rule.

1.1.2 STATE OF GOOD REPAIR PERFORMANCE MEASURES

The TAM Rule requires that transit agencies establish state of good repair (SGR) performance measures and targets for each asset class. As a Tier 2 provider, Cherriots must report on the SGR measures for the following asset categories:

- Rolling stock (revenue vehicles): Percent of vehicles that have either met or exceeded their Useful Life Benchmark (ULB)
- Equipment (including non-revenue service vehicles): Percent of vehicles that have either met or exceeded their ULB
- Facilities: Percent of facilities rated below condition 3 on the FTA TERM scale

Note: Infrastructure (rail fixed guideway, track, signals and systems) do not apply to Cherriots.

1.1.3 TAM PLAN REQUIREMENTS

As a Tier 2 provider, Cherriots must develop a TAM Plan which includes the first 4 elements of the Final Rule and must:

- Include the capital asset inventory;
- Provide asset condition assessment information;
- Describe the decision support tools used to prioritize capital investment needs;
- Identify project-based prioritization of investments;

Additionally, Cherriots have chosen to include the 5th element as part of this initiative:

- Define the TAM and SGR policy;

At time of writing, this policy is under development and review.

To provide a visual reference for compliance, Table 2 below reflects the strategy that Cherriots will be using to satisfy all requirements listed above. This table also lists the minimum requirements to be met in the guidelines as part of the initial TAM Plans to be developed. TAM Plans must be updated in their entirety at least once every four years.

Table 2 – Cherriots' TAM Plan – U.S. 49 CFR Compliance Matrix

Cherriots' Tier 2 TAM Plan includes the following elements:			
No:	**U.S.49CFR625:**	**Requirement**	**TAM Plan Compliance**
1	49CFR§625.25 (b)(1)	Inventory of the number and type of all capital assets a provider owns, except equipment with an acquisition value under $50,000 that is not a service vehicle.	Capital Inventory for all asset-classes, including assets with an acquisition value greater than $5,000, is presented in Section 4 "Transit Asset Inventory" of the TAM Plan. Annual changes to the inventory will also be reported in Section 4 in future issues of the TAM Plan.
2	49CFR§625.25 (b)(1)	An inventory must also include third-party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision of public transportation.	Ownership of inventory is included in Section 4 "Transit Asset Inventory" of the TAM Plan, which captures Cherriots - owned inventory. Cherriots does not own any guideway infrastructure.
3	49CFR§625.25 (b)(2)	Condition assessment of those inventoried assets for which a provider has direct capital responsibility and to level of detail to monitor, predict performance of assets, and inform investment prioritization.	The assessed condition of the assets is included in Section 4.2 "Asset Condition" of the TAM Plan. Performance targets for future years are set out where appropriate in Section 3 "Levels of Service" of the TAM Plan and reported through NTD.
4	49CFR§625.25 (b)(3)	Description of analytical processes or decision-support tools to estimate capital investment needs over time and develop its investment prioritization.	Use of tools, asset lifecycle strategies, and approaches to support decision making is described in Section 6 "Asset Lifecycle Strategies" of the TAM Plan
5	49CFR§625.25 (b)(4)	Project-based prioritization of investments.	The prioritized list of investment projects is set out in Section 7 "Work Plans and Budget Forecasts" of the TAM Plan.
6	49CFR§625.25 (b)(5)	Provider's TAM and SGR policy.	TAM/SGR Policy is presented in Cherriots' Board of Directors approved "Asset Management Policy" and is summarized in Section 2 "Asset Management Policy" of the TAM Plan.
When developing its investment prioritization, Cherriots must:			
11	49CFR§625.33 (a)	Identify a program of projects to improve or manage the SGR of capital assets for which the provider has direct capital responsibility over the TAM Plan horizon period;	Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 7 "Work Plans and Budget Forecasts" in the TAM Plan.
12	49CFR§625.33 (b)	Rank projects to improve or manage the SGR of capital assets in order of priority and anticipated project year;	Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 7 "Work Plans and Budget Forecasts" in the TAM Plan.

Cherriots' Tier 2 TAM Plan includes the following elements:			
No:	**U.S.49CFR625:**	**Requirement**	**TAM Plan Compliance**
13	49CFR§625.33 (c)	Ensure project rankings are consistent with its TAM policy and strategies;	The approach to prioritizing projects is set out in Section 6 "Asset Lifecycle Strategies" in the TAM Plan.
14	49 CFR § 625.33 (d)	Give due consideration to state of good repair projects to improve those that pose an identified unacceptable safety risk;	Identification and management of risks are set out in Section 5 "Risk Management" of the TAM Plan. Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 8 'Work Plans and Budget Forecasts' in the TAM Plan.
15	49 CFR § 625.33 (e)	Take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM Plan horizon period; and	Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 7 "Work Plans and Budget Forecasts" in the TAM Plan.
16	49 CFR § 625.33 (f)	Take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities.	Strategies for maintaining assets are set out in Section 6 "Asset Lifecycle Strategies"

Each section of the TAM Plan contains references to the requirements of the Final Rule on Asset Management in the U.S. CFR. A glossary of key terms can be found in Appendix B: Key Definitions.

1.1.4 TAM REPORTING REQUIREMENTS

All public transit provider's initial TAM Plan must be completed by October 1, 2018. U.S. Title 49CFR§625.29 (a) states that a TAM Plan should cover a Planning horizon of at least four years. Amendments to the TAM Plan may be undertaken at any time and should be initiated following any major change to the asset inventory, condition assessment, or investments. The TAM Plan should also be updated following any change to prioritization processes affecting the timing of future projects.

In addition to the performance targets and TAM Plan, the TAM Final Rule requires that two additional asset management reports be submitted to the NTD annually:

- The **Data Report** should describe the condition of the transportation system currently and the SGR performance targets for the upcoming year.
- The **Narrative Report** should describe changes in the transportation system condition and report progress on meeting the performance targets from the prior year.

The first Data Report is due no later than four months after the end of the provider's 2018 fiscal year end. The first Narrative Report is due within four months of the provider's 2019 fiscal year end. Subsequently, both reports are due to the NTD no later than four months after the provider's fiscal year end. Over the course of this year and before the deadline, Cherriots will modify and submit these additional reports which will be reflected in this TAM Plan.

2. ASSET MANAGEMENT POLICY

Cherriots is committed to effectively manage its capital assets and maintain its system in a SGR to support safe, efficient, and reliable transit across the organization. An Asset Management Policy has been created, and awaits approval by the Board of Directors at the time of writing this TAM Plan.

This TAM Plan outlines Cherriots' overall asset management approach in a manner consistent with that proposed Policy and current federal regulations (49 U.S.C. 5326) and sets the direction for establishing and maintaining transit asset management strategies and Plans that are achievable with available funds.

This TAM Plan complies with the Federal Requirements of MAP-21 law, which reauthorized surface transportation programs and introduced new NTD reporting requirements. These regulations were finalized in July 2016 with revisions through the Federal Registry (The Final Rule), detailing the expected responsibilities of transit agencies. Newly included responsibilities mandate that transit agencies have TAM and SGR procedures in place. Accordingly, Cherriots commits to:

- Maintain an asset inventory that includes all vehicles, facilities, and equipment used in the delivery of transit service;
- Identify all safety-critical assets within the asset inventory and prioritize efforts to maintain those safety-critical assets in a SGR;
- Clearly define ownership, control, accountability, and reporting requirements for assets, including leased and third-party assets;
- Set annual asset performance targets and measure, monitor, and report on progress towards meeting those targets;
- Base capital project prioritization and other asset management decisions on asset criticality, condition, performance, available funding, safety considerations, and on the evaluation of alternatives that consider full lifecycle benefits, costs, and risks; and
- Maintain an agency-wide TAM Plan, in coordination with Cherriots safety policies and Plans.

2.1 TAM APPROACH AND VISION

TAM is a strategic approach to managing fleet and facilities; to optimize their performance; their useful life; and, to minimize their total cost of ownership. Cherriots is committed to a TAM Plan that will help ***meet federal requirements established under MAP-21 (49 U.S. Code § 5326) and the subsequent FTA TAM Final Rule,*** ensuring our ability to continue receiving federal funds, and align Cherriots with the International Organization for Standards, ISO 55000 series of standards for Asset Management Systems, and other industry best practices.

Cherriots' TAM Vision is an extension of Cherriots' mission statement "*Connecting people with places through safe, friendly, and reliable public transportation services.*" Cherriots' Mission Commitments and TAM Vision are reflected in Table 3 – Cherriots' TAM Vision. This provides a visual representation of our direction for establishing and continually improving asset management strategies and Plans, including setting of goal and measures to monitor and continually improve performance.

Table 3 – Cherriots' TAM Vision

Mission Commitment	TAM Vision Elements

Safety	Cherriots' TAM program intends to provide a safe and secure environment for the entire District community. To do that, we will foster a safety culture and align our asset and safety management practices, and will proactively review and communicate safety-related issues.
Service Excellence	Through improved management of our assets we will enhance the customer experience. We will deliver world-class customer service through improved internal/external communications, service reliability, convenience, accessibility, while meeting all agreed standards of service. Our TAM Plan will enable us to continually improve the reliability of the transit system and the agency's overall efficiency. Our maintenance and capital programs will improve operational performance, reduce asset related risks, and reduce our SGR backlog. This will also help reduce the impact of our activities on the environment and develop ways to make our transit system more resilient.
Communications	We will continue to improve internal and external communications with routine meetings with the TAM Core Team and communicate the TAM Plan throughout the organization through newsletters, "tailgate" and "toolbox" meetings.
Innovation	Cherriots will continue to consider and implement innovative solutions in order to improve both the services provided to ridership, as well as to the internal and externals systems and processes that support them.
Accountability	Cherriots will employ effective asset management business practices and tools, ensure optimal asset performance and useful life, and use timely, quality data to support transparent and cost-effective decision-making and help us be accountable to our stakeholders. We will employ historical data to better inform future investment decisions and accurately capture capital and operating costs to assess and optimize the total cost of ownership of our assets. This program will deliver high-quality data that will enable Cherriots to prioritize funding needs and make more informed capital investment decisions for a sustainable and fiscally responsible transit system.

This TAM Plan documents the agency-wide objectives and performance measures around the five TAM Vision Elements to monitor successful vision implementation, communicate progress to relevant stakeholders, and facilitate the continuous improvement process.

The Fleet Maintenance- and the Facilities Maintenance Plans set clear expectations for how departments will manage their assets in line with Cherriots' overall mission.

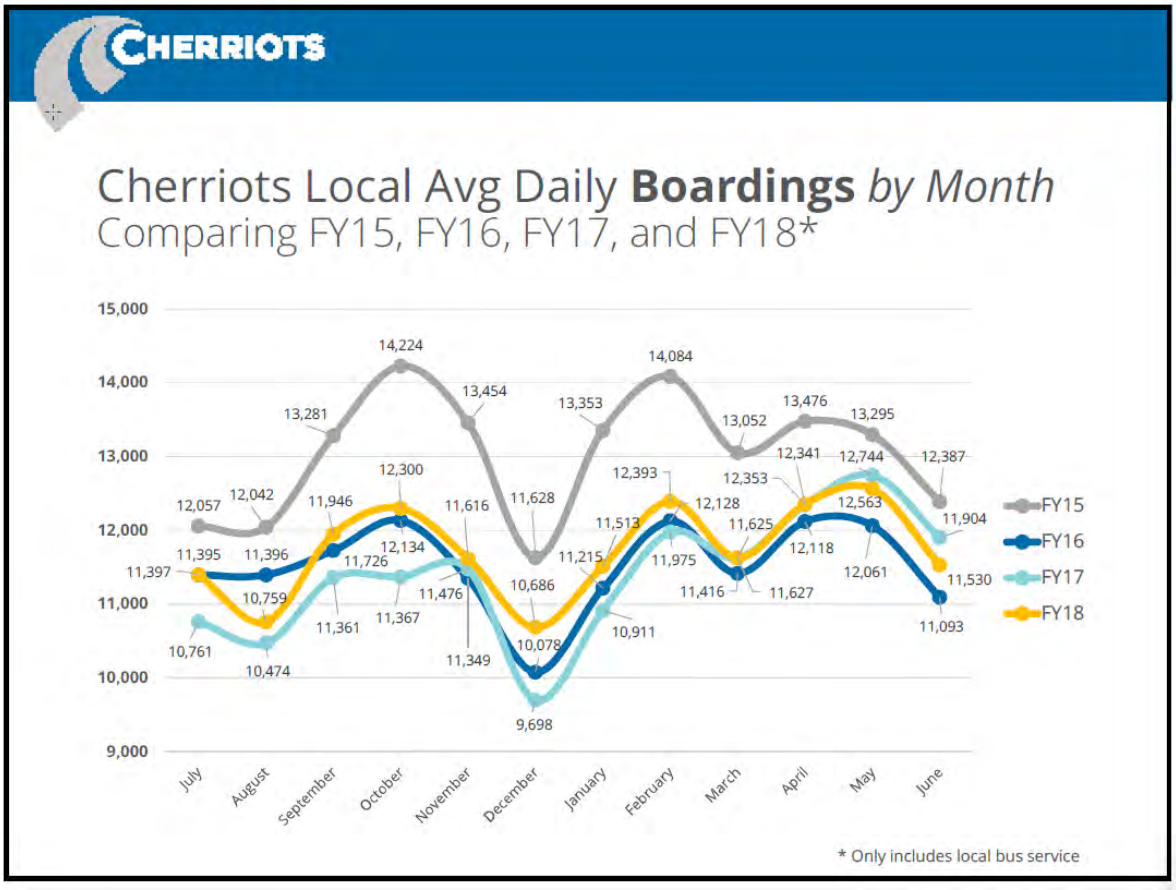
3. LEVELS OF SERVICE

"Levels of service" is an industry term that refers to the measurement of transit system performance. This TAM Plan is built around achieving improvements in these levels of service. Customer levels of service are typically in the form of published schedules and/or policy for minimum service frequencies, on-time-performance goals, customer comfort considerations (e.g., climate control), etc. These customer levels of service are directly impacted by technical levels of service such as asset reliability standards, preventive maintenance program goals, meantime to repair, fuel efficiency standards, etc. Technical levels of service are developed for assets to inform asset management decision making and investment prioritization.

3.1 RIDERSHIP TRENDS

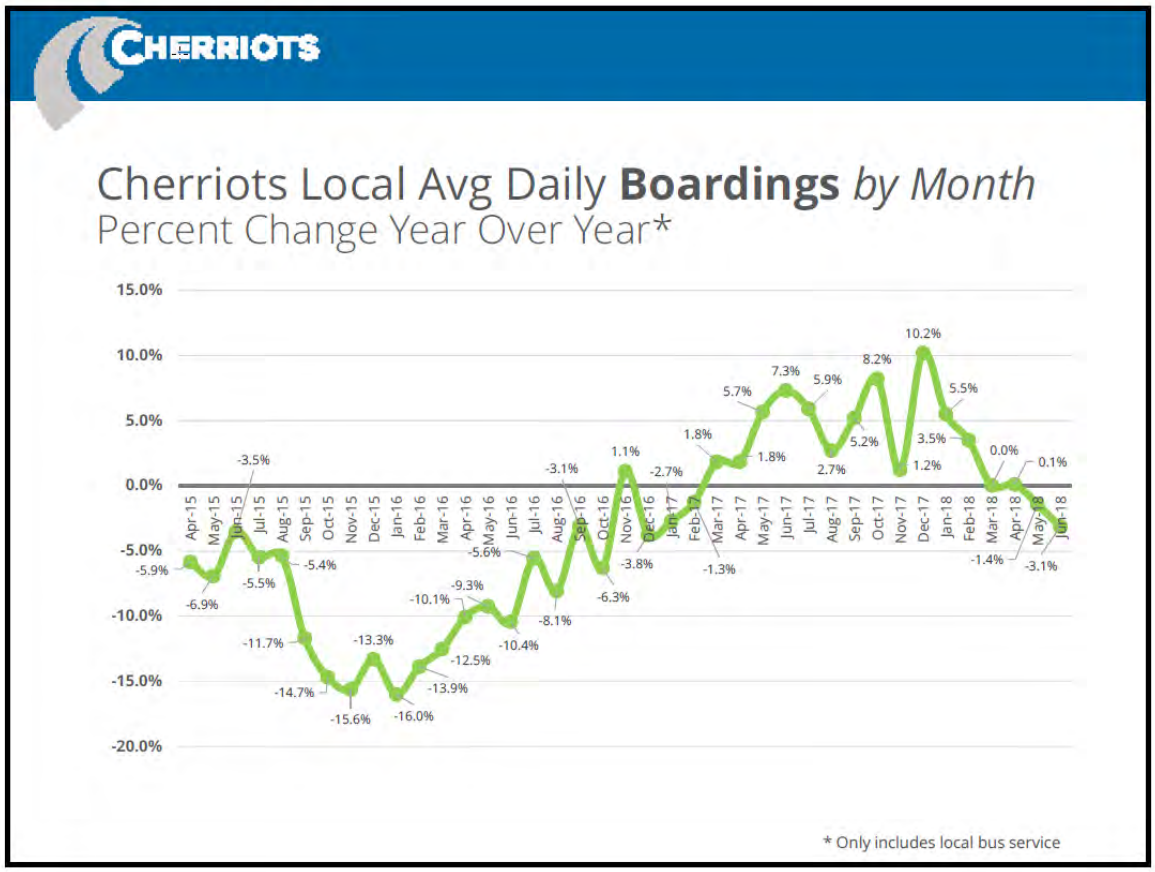
Cherriots' services and demographics are described in some detail in the overview section of this document. While Cherriots ridership has dropped since 2015, it has remained fairly steady for the last 3 years, with regularly predictable seasonal fluctuations in boardings, as illustrated in figure 7.

Figure 7 – FY 2015 to 2018 Local Bus Service Boardings



This is further illustrated by Figure 8, which shows the percentage ridership change year over year, with ridership being consistently higher for most of 2017, then then declining early in 2018.

Figure 8 – Boardings – Percentage change year by year



3.2 CUSTOMER LEVEL OF SERVICE

Cherriots plan to start providing weekend service from September 2019, which significantly increase both service and ridership, while utilizing current revenue vehicles to achieve up to 20% more passenger-miles.

3.2.1 PERFORMANCE MEASURES

Cherriots is committed to fully comply with all relevant FTA requirements associated with the development and continuing improvement of this TAM Plan. The following is a summary of those requirements:

The TAM Rule requires SGR performance measures for capital assets.

Reference: *49CFRPart625, Subpart D, Section 625.43 "SGR performance measures for capital assets. (a) Equipment: (non- revenue) service vehicles*. The performance measure for non-revenue, support-service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their ULB. *(b) Rolling stock*. The performance measure for rolling stock is the percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB. *(d) Facilities*. The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale.

The TAM Rule requires setting targets for performance measures.

Reference: *49CFRPart625 Subpart D, Section 625.45 "(a)(1)* A provider must set one or more performance targets for each applicable performance measure. *(a)(2)* A provider must set a performance target based on realistic expectations, and both the most recent data available and the financial resources from all sources that the provider reasonably expects will be available during

the TAM Plan horizon period. *(b)(2)* At least once every fiscal year after initial targets are set, a provider must set performance targets for the following fiscal year.

Appendix E provides the performance targets for each measure required by FTA for submittal through the annual NTD reporting process. This TAM Plan aims to achieve or surpass these performance targets by October 1, 2018. Many of these targets are already being satisfied.

Targets for vehicles are expressed in terms of percentage of assets that are at or beyond the Useful Life Benchmark (ULB), therefore the ideal situation is to be less than the target.

4. TRANSIT ASSET INVENTORY

4.1 ASSET INVENTORY

Cherriots manages an asset portfolio estimated to be about $150 million in original purchase value, not including all soft costs associated with asset replacement such as design and construction management costs.

This asset portfolio can be viewed from the perspective of Asset Type Fleet or Facilities, by Asset Category and, by Asset Class. Table 4 summarize Cherriots' asset inventory and, a detailed Transit Asset inventory is maintained by the *Office of Planning and Programming*.

Table 4 – Asset Inventory by Type, Category and Class

Type	Category	Class	Qty	Replacement Cost
Fleet	Rolling Stock	Buses	71	$34,885,000
		Cutaway	42	$3,190,000
		Minivans	10	$485,000
	Equipment	Support Equipment	18	$651,000
Facilities	Buildings	Operations Maintenance and Passenger Facilities	3	$107,545,285

4.2 ASSET CONDITION

The TAM Rule requires inclusion of condition assessments in an agency's TAM Plan. Condition assessments should collect sufficient information to inform asset replacement.

Reference: 49 CFR Part 625 Subpart C Section 625.25(b)(2) "… a TAM Plan must include … (2) A condition assessment of those inventoried assets for which a provider has direct capital responsibility. A condition assessment must generate information in a level of detail sufficient to monitor and predict the performance of the assets and to inform the investment prioritization."

Cherriots' Fleet and Facilities asset portfolio are of varying ages, and their condition deteriorates at differing rates.

REVENUE AND NON-REVENUE VEHICLES

For Vehicle ULBs, Cherriots uses the Oregon Department of Transport (ODOT) guidelines as published online on the ODOT Website, and included here as Appendix E. These ULBs, where they vary from the FTA Cheat Sheet values, have been adjusted to reflect the more accurately the operational conditions in the Oregon geographic areas.

FACILITIES

Cherriots' facilities have been professionally assessed by outside consultants (Clampett Industries – EMG), who have employed the FTA's Transit Economic Requirements Model (TERM) scale to conduct assessments, and determine weighted condition values as described below in Table 5.

Table 5 – Fleet and Facilities Condition Assessment Criteria

Scale	Rating	Fleet Asset Criteria: the asset …	Facilities Asset Criteria: the asset …
5	Excellent	Performs its designed function Is new and within warranty period Does not pose a known unacceptable safety risk	Performs its designed function Is new and within warranty period Does not pose a known unacceptable safety risk
4	Good	Performs its designed function Is out of the warranty period Has not met its useful life Does not pose a known unacceptable safety risk	Performs its designed function Has not met its useful life Does not pose a known unacceptable safety risk
3	Adequate	Performs its designed function Is out of the warranty period Has not met its useful life Is greater than 50% of its useful life Does not pose a known unacceptable safety risk	Performs its designed function Has not met its useful life Does not pose a known unacceptable safety risk
2	Marginal	Performs its designed function Has met its useful life Does not pose a known unacceptable safety risk	Performs its designed function Has met its useful life Does not pose a known unacceptable safety risk
1	Poor	Has met its useful life Does not performs its designed function Poses a known unacceptable safety risk	Has met its useful life Does not performs its designed function Poses a known unacceptable safety risk

For Fleet assets, condition assessments are scheduled and completed annually. For Facilities assets, condition assessments are scheduled and completed using in-house staff and outside contractors where a particular set of skills or experience are necessary.

These results are compiled into The Condition Assessment Report which can aggregate (roll-up) the individual asset condition assessments to the Asset Class level. The formula for aggregation of this data is as follows:

$$\textbf{Asset Condition Assessment Formula} = \sum \frac{\textbf{(Asset Rating, Asset Qty)}}{\textbf{Asset Qty}}$$

Cherriots' assets with a TERM condition score of 2.5 and above are in a State of Good Repair (SGR). Assets with a condition score lower than 2.5 are ***not*** in a SGR, and may need to be replaced or refurbished to ensure safe, efficient, and reliable transit service. For Fleet, ULBs are directly linked to the SGR threshold set at 2.5.

Note that these condition scores can represent individual asset conditions or can represent the average condition of all assets in each category/sub category depending on aggregation.

The estimated condition of Cherriots' Transit Assets as of October 2017 are reflected in the recurring TAM Inventory Report.

4.2.1 ANNUAL NATIONAL TRANSPORTATION DATABASE (NTD) REPORTING

The TAM Rule requires that agencies annually report on their progress towards meeting SGR performance targets and any change in condition from the previous year

Reference: 49 CFR Part 625 Subpart E Section 625.55(a) (2) "Each provider must submit … (2) An annual narrative report to the National Transit Database that provides a description of any change in the condition of the provider's transit system from the previous year and describes the progress made during the year to meet the performance targets set in the previous reporting year."

FTA requires transit providers to update TAM Plans in their entirety at least once every four years, with the first completed TAM Plan required by October 1, 2018.

Beginning in October 2019, Cherriots will also be required to prepare an NTD Narrative Report every year along with annual performance targets. This section will include the Narrative Report that will describe changes in Cherriots' system condition since the prior year, and report progress on meeting the performance targets set during the prior year.

For this revision, to be submitted prior to October 2018 this section will not be populated as there is no prior reporting requirement of previous years for comparison. TAM Plan revisions from October 2019 forward will describe changes in condition from the previous reporting year.

5. ASSET LIFECYCLE STRATEGIES

The TAM Rule requires that TAM Plans provide the implementation strategy.

Reference: 49 CFR Part 625 Subpart C Section 625.25(b) "Transit asset management Plan elements … (6) a provider's TAM Plan implementation strategy; (7) A description of key TAM activities that a provider intends to engage in over the TAM Plan horizon period"

This section identifies Cherriots' key asset management practices across the lifecycle for the Fleet and Facilities assets. The asset strategies, as captured in the Fleet and Facilities Maintenance Plans (FMPs), set out the approach for managing a specific asset class that will deliver Cherriots' strategic objectives in line with the TAM Policy and the TAM Vision.

Recognizing that each asset category and asset class is challenged with a unique set of performance characteristics and resource requirements, Cherriots has developed these FMPs. These Plans provide guidance for managing the Fleet and Facilities to align with this TAM Plan.

Cherriots uses the FleetNet Fleet Maintenance application to track all of the lifecycle management activities. These activities actually make up the lifecycle strategies. This includes all of the Preventive Maintenance Tasks, Standard Operating Procedures (SOPs), Inspections and proactive maintenance activities performed to ensure consistent asset lifecycle management at the asset class level.

These activities all align with the organization's business goals and objectives providing "Line-of-Sight" organizational alignment to ensure a consistent collection and analysis of data as a fundamental element of Cherriots' implementation approach. Cherriots' document hierarchy for these lifecycle activities are reflected in Figure 9.

Figure 9 – Asset Management Document Hierarchy

5.1 LIFECYCLE MANAGEMENT STRATEGIES

As discussed above, the FMPs outline the approach to lifecycle management and detail the activities associated with these efforts. These FMPs are the implementing documents used to satisfy the Asset Management Policy, the Vision, and this TAM Plan.

5.1.1 FLEET MAINTENANCE PLANS

Cherriots has developed the Fleet Maintenance Plan to monitor and manage their service fleet, contingency fleet, bus stops & shelters assets to achieve and maintain a state of good repair, improve safety and increase reliability and performance. The purpose of the Fleet Maintenance Plan is to provide a detailed guide to the structure, maintenance and ongoing performance of the vehicles in their revenue- and non-revenue fleet. A copy of the Fleet Maintenance Plan is included as Appendix 2.

5.1.2 FACILITIES MAINTENANCE PLAN

Cherriots has developed the Facilities Maintenance Plan to monitor and manage Cherriots' assets to achieve and maintain a state of good repair, improve safety and increase reliability and performance. The purpose of the Facilities Maintenance Plan is to provide a detailed guide to the methods and procedures utilized in acquiring, maintaining and replacing their facility and equipment systems and subsystems, including the Del Webb Operations and Maintenance buildings, Keizer Transit Center, Downtown Transit Centers, including maintenance, custodial services, electrical, plumbing, HVAC, landscaping and so forth.

A copy of the Facilities Maintenance plan is included, as Appendix 3.

6. INVESTMENT PRIORITIZATION AND FUNDING

The TAM Rule describes the specific requirements for investment prioritization.

Reference: 49 CFR Part 625 Subpart C Section 625.33 "(a) A TAM Plan must include an investment prioritization that identifies a provider's programs and projects to improve or manage over the TAM Plan horizon period the state of good repair of capital assets for which the provider has direct capital responsibility. (b) A provider must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year. (c) A provider's project rankings must be consistent with its TAM policy and strategies. (d) When developing an investment prioritization, a provider must give due consideration to those state of good repair projects to improve that pose an identified unacceptable safety risk when developing its investment prioritization. (e) When developing an investment prioritization, a provider must take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM Plan horizon period. (f) When developing its investment prioritization, a provider must take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities."

This chapter identifies and highlights Cherriots' asset investment needs (capital and operational budget needs, the process used to prioritize investments, and the anticipated impact on current and future resources), based on Cherriots' organizational goals, asset management strategies, core principles and processes.

6.1 PROCESS OVERVIEW

Part of the asset management process is optimizing how funds are spent based on the assessed asset inventory to help achieve and maintain a state of good repair. This includes both capital and operating funds. Cherriots's capital budget funds the planning, design, acquisition, capital maintenance and rehabilitation of all assets subject to this TAM Plan. The operating budget funds the use and routine maintenance of those same assets, including the staff needed to perform those functions.

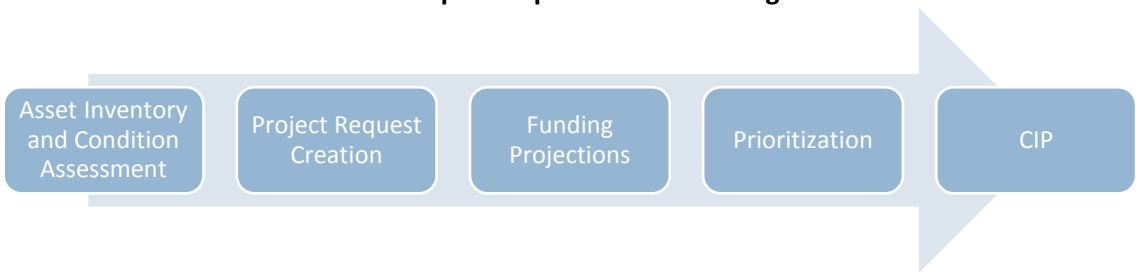
The Capital Investment Plan (CIP) is the base document for the Capital Budget process. Projects listed in the CIP will be considered for funding. Therefore, the capital budget process will begin with an update of the CIP.

Departments requesting funding are required to have a narrative section to describe how they manage their assets and state the current condition of those assets. These narratives are to be accompanied by a five-year outlook of expected costs of replacements and improvements. Narratives and tables are submitted to the Capital Program Committee (CPC) Chair by end December. A draft of the CIP document is made available by end of December/early January. After budget adoption, a final CIP document is printed and circulated.

When the CPC convenes in December, it reviews all projects and prioritizes them.

The basic process for assembling the CIP is shown below in Figure 10.

FIGURE 10 – Capital Improvement Planning Process



The start of the process is updating and analyzing the asset inventory and condition assessment so that programming can be based off an updated set of data. The next step is the creation of project requests based on the inventory and condition data. Cherriots views its capital projects as either additions to the capital plan or as maintenance, rehabilitation and replacement of existing assets.

6.2 CAPITAL INVESTMENT PRIORITIZATION

The safe operation of service and employee safety are highest priorities. Cost effective capital maintenance and replacement, integral to safe operations and fiscal stability, is high priority. Capital maintenance and replacement of assets related to customer service delivery will usually be higher priority than operating facilities capital maintenance. Additions to the CIP usually require new revenue or grant revenue to be budgeted.

The following prioritization levels are the criteria Cherriots uses to evaluate proposed projects:

S = Safety – high

SGR = State of Good Repair (cost effective capital maintenance, replacement) – high, medium

M = Mandates (state, federal requirements) – high, medium

ESR = Existing Service Reliability, Delivery – high, medium, low

EO = Efficient Operations – high, medium, low

ES = Expanded Service – low without new or grant revenue sources.

FUNDING REQUESTS

All project requests include the following particulars:

- **Asset Management Goal** – What is the goal for each particular asset class, what is an efficient state of good repair?

- **Key Asset Management Performance Indicators/Goals** – Performance indicators that measure the State of Good Repair. What is the stated target/objective? If there is a backlog, include a plan to bring assets to a State of Good Repair and select an indicator to measure progress.

- **How Asset is Maintained and Condition Evaluated** – Are there routine inspections, is a consultant hired to evaluate, or is the asset generally not noticed until it breaks.

- **Condition Scale** – Define your condition scale on a scale of 1-5, with 1 being poor and needing replacement and 5 meaning excellent.

- **Priority** – Apply a priority based on the District's long standing capital improvement priorities (described above)

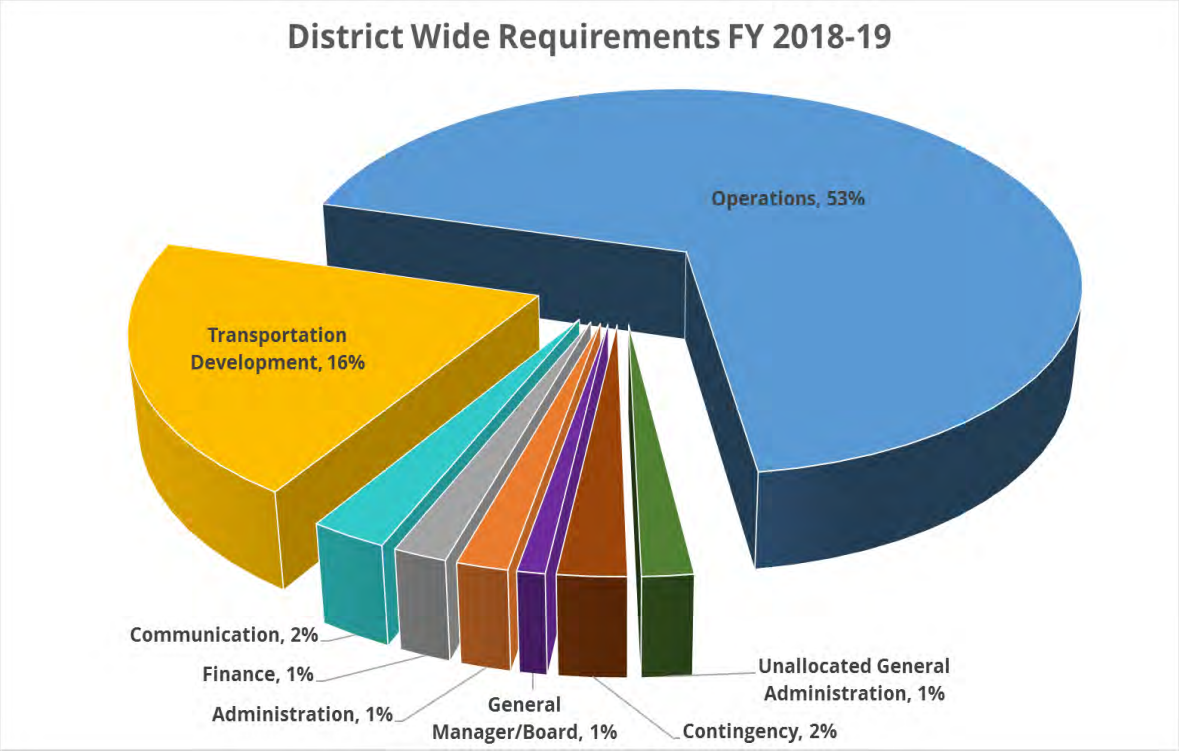
- **Asset Replacement Criteria –** When does that asset get replaced or need to be replaced, at what scale number is replacement imminent.

6.3 OPERATING AND CAPITAL INVESTMENT PLANNING AND BUDGET

Cherriots' operating budget funds service delivery and maintenance, including employee wages, spare parts, consumables, and a variety of support services used throughout the organization. This also includes payments to third-party contractors responsible for consulting and maintenance activities.

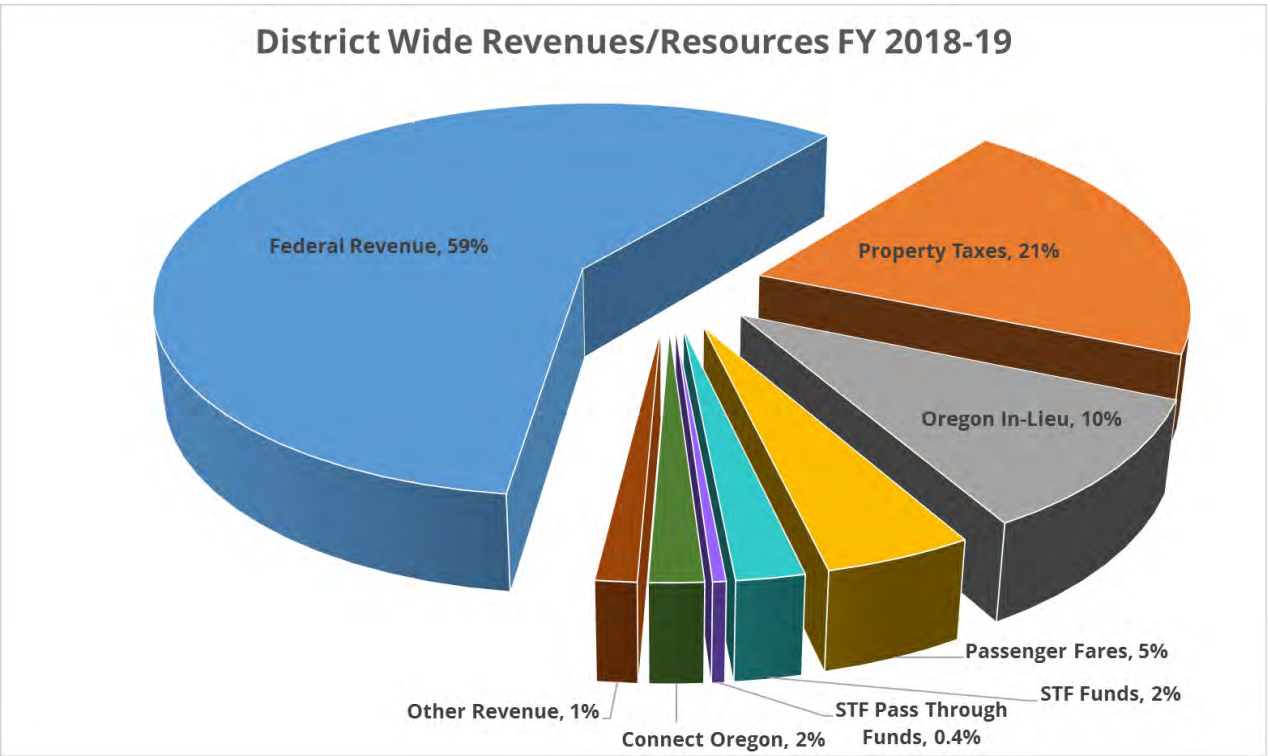
Figure 11 below shows the composition of the FY 2018-19 operating budget.

Figure 11 – Operating Expense Budget



Revenue breakdown for the agency is represented in Figure 12.

Figure 12 – Revenue/Resources



LIST OF APPENDICES

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1	Organization Mission and Goals
2	Fleet Maintenance Plan
3	Facilities Maintenance Plan
4	TAM Targets
5	Key Definitions
A	Asset Register
B1	Revenue Vehicle Condition Data
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APPENDIX 1: ORGANIZATION MISSION AND GOALS

VISION

Making a positive difference by enhancing community livability through innovative, sustainable regional transportation options

MISSION

Connecting people with places though safe, friendly and reliable public transportation services

VALUES

Safety Service Excellence Communication Innovation Accountability

CHERRIOTS

FLEET MAINTENANCE PLAN

MAY 2018

TABLE OF CONTENTS

Cherriots Fleet Maintenance Plan

Revision	Date	Reason
	10/31/15	Original
1	05/04/18	General Update

Title VI

Cherriots ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally-assisted programs and activities. For questions regarding Cherriots Title VI Program, you may call (503) 588-2424.

Americans with Disabilities Act (ADA) Information

The Americans with Disabilities Act, Title II, states, in part, that "no otherwise qualified disabled individual shall, solely by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in programs, services or activities sponsored by a public entity." At Cherriots, we are committed to complying with the requirements of Title II of the ADA in all of its programs, services, benefits and activities.

ACRONYMS

ADA	Americans with Disabilities Act
APC	Automatic Passenger Counters
ASA	Automated Stop Announcements
AVL	Automatic Vehicle Location
CAD	Computer Aided Dispatch
CBI	Contingency Bus Inspection
CNG	Compressed Natural Gas
DRI	Digital Recorder – Voice Announcing System
DVI	Daily Vehicle Inspection
DVIR	Daily Vehicle Inspection Report
FTA	Federal Transit Administration
PM	Preventive Maintenance
SOPs	Standard Operating Procedures
TC	Transit Center • DTC – Downtown Transit Center • KTC – Keizer Transit Center • WSTC – West Salem Transit Center
UGB	Urban Growth Boundary

1.Introduction

Salem Area Mass Transit District, more commonly known as Cherriots, is a transit district based in Salem, Oregon. Cherriots provides weekday bus and paratransit service in Salem and neighboring Keizer, as well as to Marion and Polk counties. Salem Area Mass Transit District was established by the State of Oregon in 1979. Before then, the City of Salem operated bus service under the name Cherriots.

The population of Salem's urbanized area is around 236,000 along Interstate 5 and the population of the overall Cherriots service area is around 410,000, covering 76 square miles in the Willamette Valley of Oregon. In Fiscal Year 2016, annual Cherriots ridership between all services was just over 3.6 million, averaging 14,300 rides per day. Bus service operates with 53 peak vehicles. There are an additional 43 vehicles dedicated to providing Cherriots LIFT paratransit service.

Cherriots is governed by a seven-member, elected Board of Directors and provides service in both Marion and Polk counties. Salem is the Capital of Oregon, and the Salem-Keizer urbanized area is situated 47 miles south of Portland and 64 miles north of Eugene.

The range of Cherriots urban local fixed-route and commuter bus service, rural commuter express service, paratransit service, and dial-a-ride service specific to seniors and individuals with disabilities, provide approximately 3.6 million passenger trips annually. All Cherriots services operate Monday through Friday, 6:00 a.m. to 9:00 p.m., with no weekend service currently.

Cherriots local fixed-route bus services are primarily offered within the Salem-Keizer Urban Growth Boundary (UGB), as defined by state statute. The Cherriots Regional service connects the Salem-Keizer area with the city of Wilsonville to the north, where riders can directly access the Portland metropolitan area, as well as to surrounding, rural communities in Marion, Polk, Linn, Yamhill, and Clackamas counties. The population served by Cherriots full range of services is well over 500,000.

Cherriots mission is to connect people with places through safe, friendly, and reliable public transportation services. With 22 Cherriots local routes, fixed-route service provides regularly-scheduled transit service connecting workforce centers, a multitude of medical and health care services, senior centers, continuing education establishments, and shopping districts. Cherriots partners with outlying communities to provide commuter express services that bring people directly from outlying areas to the critical services offered within the cities of Salem and Keizer.

Salem is the state capital and the county seat of Marion County. Cherriots operates specific routes that are aimed at providing transportation to large work centers, such as the Capitol Mall, Chemeketa Community College, and Salem Hospital. One of the busiest corridors of the city, Lancaster Drive, is home to malls and retail facilities. These are large employment providers and generate jobs for economically-disadvantaged individuals. The most popular destination of transit riders in east Salem is Chemeketa Community College, another large employer and our local community college.

The population of Cherriots service area grew 14.2 percent from 2000 to 2010, and is anticipated to grow at the same rate in future years. Approximately 58 percent of Cherriots riders do not have access to a vehicle, compared to 39 percent of neighboring Cherriots riders and 29.4 percent of Lane Transit District's riders.

While economic growth is slowly returning to the Salem-Keizer area, 29.4 percent of the residents of Marion and Polk counties still live below 150 percent of the federal poverty line and are considered "low-income" compared to 24.9% nationally.

Cherriots LIFT service provides complementary paratransit service under the Americans with Disabilities Act (ADA) within the UGB. Cherriots Shop and Ride is a shopper shuttle and dial-a-ride service available to seniors 60+ and individuals with disabilities with no required qualification. Cherriots operates Cherriots Regional providing commuter express and flex-route service in rural Marion, Polk, and Linn counties. Cherriots Trip Choice promotes and coordinates easy and cost-effective transportation options throughout Marion, Polk, and Yamhill counties. It offers information and coordination for carpooling, vanpooling, public transit, bicycling, walking, and telecommuting.

Cherriots serves the largest public and private employers in Salem. These are the State of Oregon offices (21,000 employees) and Salem Health (4,000 employees) respectively. A March 2014 comprehensive service analysis report identified 85% of jobs are located within a quarter mile of any bus stop in Cherriots transit service network. Focusing jobs, housing, and services to best take advantage of the Cherriots transit system ultimately will reduce the need to drive, therefore, enriching the lives of the community.

Cherriots operates local bus service in the Salem-Keizer area. Other services Cherriots provides are Cherriots Regional, Cherriots LIFT, and Cherriots Shop and Ride (see below). In addition to operating service, Cherriots offers travel training to

riders and runs the Cherriots Trip Choice program – helping connect riders with transportation options, including transit, carpools and vanpools, biking, and walking.

Cherriots

Local bus routes serve local streets in the Salem-Keizer area, providing service within the Salem-Keizer UGB (Figure 1-1).

Cherriots Regional

Regional express routes provide bus service between towns and cities mostly in Marion and Polk counties. Additionally, Cherriots provides the Polk County Flex, an origin-to-destination service in Dallas, Monmouth, and Independence (Figure 1-2).

Cherriots LIFT

Origin-to-destination paratransit service provides rides to those who are unable to access regular bus service. LIFT serves the Salem-Keizer UGB. Riders must be found eligible and trips must be scheduled in advance. During Fiscal Year 2017, Cherriots provided 140,875 LIFT rides. Cherriots Contracted Services Department is part of the Operations Division, which includes Cherriots LIFT, Regional, and Shop and Ride services. The LIFT service is expressed in all caps to distinguish the program name from the vehicle lifts. LIFT is not an acronym. Cherriots operates LIFT service through a contract with a private-sector company, which provides staff for the operation of the vehicles. Cherriots owns and maintains the LIFT vehicles operated by the private company. Cherriots LIFT trips are reserved through the Cherriots Call Center, formerly known as Trip Link, which is also operated by a private-sector company. Cherriots provides the facility and all equipment to the Call Center. Cherriots additionally contracts with a private-sector company for Cherriots LIFT eligibility determinations. Cherriots is responsible for program, contract, and operations management for the LIFT transportation service, Call Center, and LIFT Eligibility.

Cherriots Shop and Ride

Shop and Ride includes both a shopper shuttle and origin-to-destination service for seniors and individuals with disabilities. This service operates throughout the Salem-Keizer UGB, and trips must be scheduled in advance.

FIGURE 1-1 – Service Area

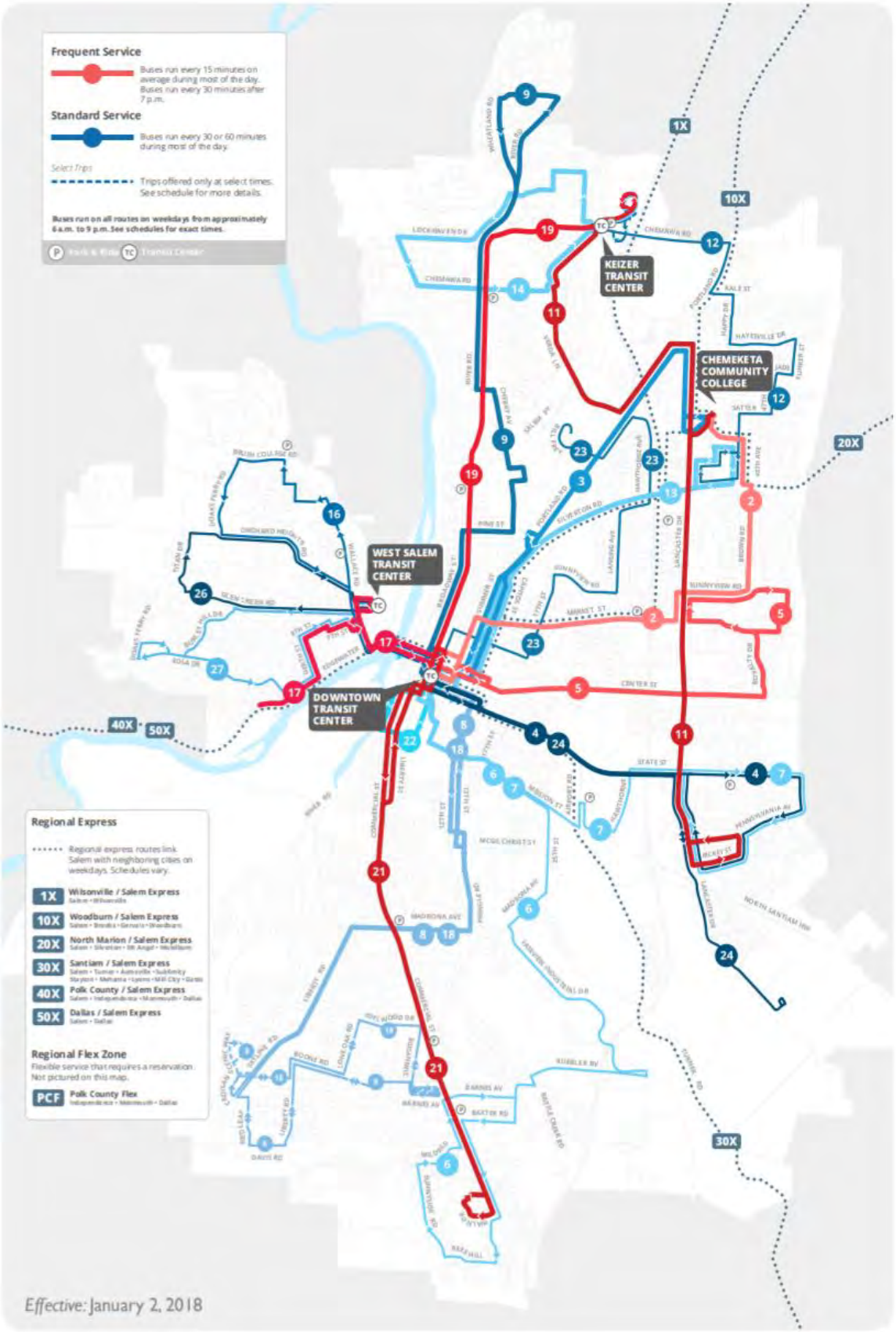
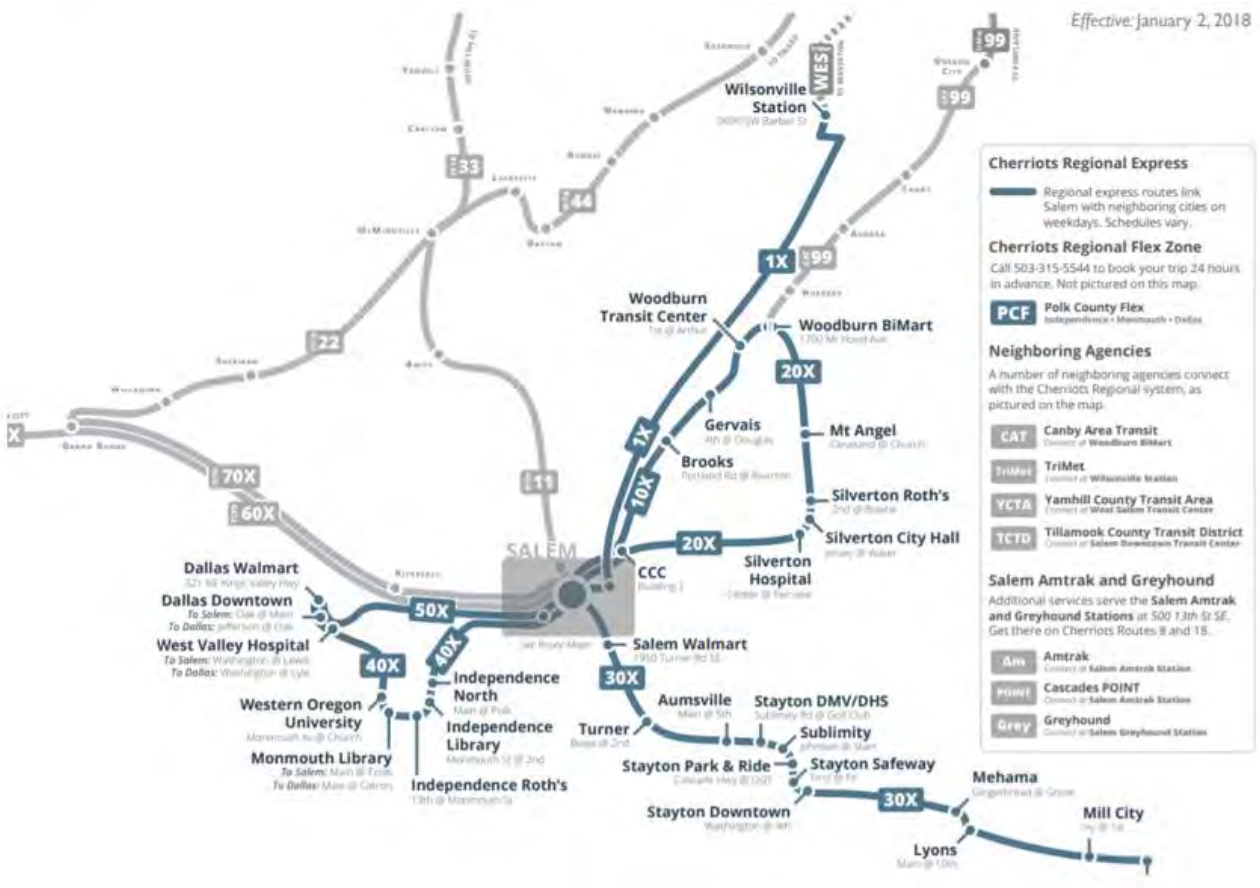


FIGURE 1-2 – Regional Routes



The Cherriots Maintenance Department is responsible for all aspects of maintaining, servicing, and cleaning of buses and support vehicles for transit services in the Salem-Keizer area. The Maintenance Department is also responsible for the upkeep and repair of Cherriots equipment and facilities, including bus stop signs and passenger shelters. The Maintenance Department strives to provide safe, reliable, and clean buses, using the most efficient and cost-effective maintenance practices, products, and personnel resources.

The primary elements of the Maintenance Department's function and the means by which it satisfies its responsibilities are described below, as well as descriptions of specific methods and procedures. As can be seen, the Maintenance Department continually seeks to improve operations, equipment, employee performance, and cost savings, thereby, providing the best possible service to the public.

2. Fleet and Maintenance Overview

2.1 Management Philosophy and Organization

The success of the Maintenance Department service in the eyes of our riders is due in large part to our safety, reliability, efficiency, cleanliness, and friendliness of the system. Hence, the continued effort to maintain our fleet in good working order is of paramount importance. Cherriots also ensures all its contractors adhere to this philosophy and that they make it part of their day-to-day efforts.

One of the keys to ensuring the success of our Maintenance Program is preventative maintenance following the schedule established by the original equipment manufacturer, and enhanced where applicable to reflect actual operation experiences. Maintaining vehicles in a state of good repair allows Cherriots to derive the full useful life from our vehicle purchases. Moreover, we are able to reduce conditions and failures which may result in unsafe conditions. Reliability is not just limited to early and timely detection of problems, but is also dependent upon a well-trained staff, ongoing communication between Cherriots staff and contractor personnel, and the general maintainability of equipment.

The Maintenance Plan provides a working outline for Cherriots and its contractors to ensure the overall reliability of the system. Processes have been established to effectively communicate Cherriots goals and objectives.

One key component of mutual communication is information reporting, which allows for Cherriots staff to measure results and identify positive and negative trends through use of various data systems.

Cherriots Maintenance supervisory staff must provide adequate personnel to operate a full schedule of Maintenance services and must ensure employees have a strong commitment to customer service. Moreover, Cherriots Maintenance team members must demonstrate a focus on continuous improvement in operational performance through dedication of local and regional resources.

2.2 Maintenance Goal

To provide efficient and economical maintenance and housekeeping services to allow the fleet, facilities, and support equipment to be used for their intended purposes.

Preventative Maintenance (PM) inspections have a goal of 100% on-time completion.

(See Appendix A for the Preventative Maintenance Inspection Reports.)

2.3 Maintenance Objectives

- Complete major vehicle repairs based upon most reliable life cycle, at the lowest cost.
- Identify, design and incorporate improvement projects to reduce and minimize total operating and maintenance costs.
- Operate the facility utilities and fleet in the most economical manner, while providing a high level of reliability.
- Provide a method for easy and complete reporting and identification of necessary repairs and maintenance work.
- Maintain the proper level of spare parts and supplies to support timely maintenance and repairs.
- Accurately track the cost of all maintenance work.
- Schedule all planned work in advance, and allocate and anticipate staff requirements to meet planned and unplanned events.
- Monitor the progress of all maintenance work to successful completion.
- Maintain complete historical data concerning the facilities in general and equipment and components in particular.
- Continually seek workable engineering and technological solutions to maintenance problems.
- Perform daily housekeeping and cleaning functions to maintain safe, efficient, and properly presentable facilities.
- Promptly respond to and repair minor problems in the facilities.
- Maintain bus stops and shelters in a manner that provides a clean, attractive, and safe area for customers.

2.4 Bus Stops and Shelters

Cherriots currently has 650 bus stop signs and 145 passenger shelters in place in

our service area. Bus stops and shelters are located, installed, and maintained in consideration of Cherriots passengers' comfort and convenience.

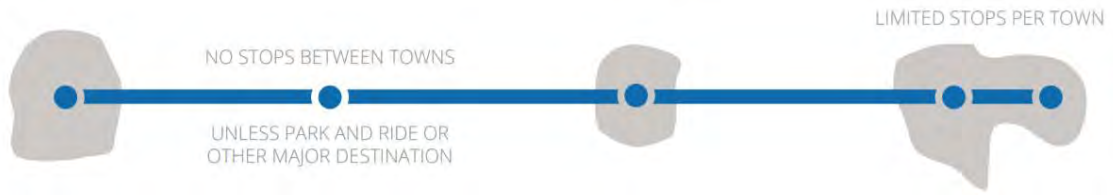
Graffiti and vandalism to Cherriots bus stops and shelters is removed or repaired as soon as it is reported. Incidents of damage or vandalism are reported to the Dispatch Office by Transit Operators, Operations Supervisors, other agencies, or the public. These reports generate a work order that is logged into a database to track repairs and costs; the work order is given to the Facilities Department for removal or repair within five working days. Repairs for damage to signs or shelters that may cause harm to the public are begun as soon as reported. The type and extent of the vandalism will determine the approach that is taken to remove or repair such vandalism. Paint and pen graffiti can be removed in the field daily by performing scheduled cleaning and trash removal duties. Paint and pen graffiti can be removed with spray vandal mark remover. Etching of shelter panels may be removed by sanding. Broken or damaged panels are moved as soon as practicable to eliminate the possibility of public injury due to sharp or hazardous edges.

Fixed-Route Local Bus Stops

For local bus service, bus stops should be placed about every quarter mile. Research shows this is typically how far riders are willing to walk to access the bus. When access to cross streets is limited, stops can be placed farther apart. All two-way bus service should have a corresponding bus stop in the opposite direction of travel so riders can get off the bus as close as possible to where they got on the bus earlier in the day.

Regional Express Bus Stops

For regional express routes, limited stops should be placed within towns and cities. Unlike local service, the primary point of regional express service is to help riders travel between cities, not within. Typically, stops are placed at major destinations such as shopping centers, universities, and in the downtown core. Stops can also be placed in unincorporated areas if there is a park and ride lot or other major destination.



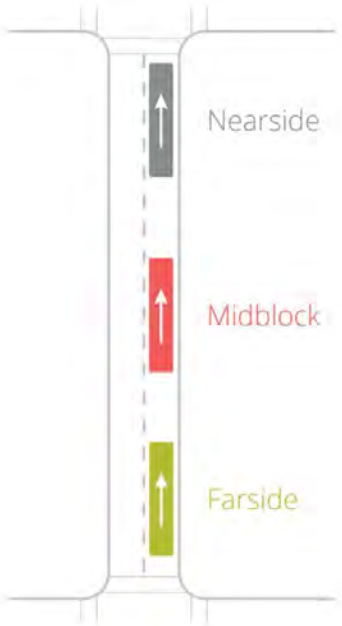
Stop Placement

Bus stop placement in relation to an intersection can have an impact on both safety and timing. Below is the preferred order of stop placement:

- Far-Side of Intersection
  Far-side bus stops are located after crossing through an intersection. Far-side placement is preferred because it makes it easier for buses to get back into a travel lane due to gaps in traffic created by traffic signals. However, multiple buses serving a far-side stop at the same time might block an intersection.

- Near-Side of Intersection
  Near-side bus stops are located at the side of the block prior to crossing an intersection. An advantage of nearside stops is that time spent waiting at a red light can overlap time loading and unloading riders. However, there is an increased risk of conflicts with vehicles making right turns.

- Mid-Block
  Mid-block stops experience less pedestrian congestion than the other two stop locations. However, unlike far-side and near-side stops, mid-block stops encourage riders to cross the street in the middle of the block, which is unsafe. Other riders may have to walk long distances to safely cross at an intersection.



In the end, every bus stop has unique circumstances and should be evaluated individually to determine the best and safest placement given conditions on the ground.

2.5 Fleet Overview

Cherriots Local Fixed-Route

Cherriots entire bus fleet is broken down into the following categories: 35' and 40' low-floor Compressed Natural Gas (CNG) buses, and 35' and 40' low-floor diesel buses. Cherriots maintains an active fixed-route fleet and a contingency fleet for emergency use. The peak requirement for Cherriots Local is 53 buses. Cherriots has a current active fleet size of 64 Cherriots Local buses. Please see Table 2-1 for the exact fixed-route fleet breakdown and Section 2.8 for contingency fleet information.

Cherriots LIFT – Paratransit

The Cherriots LIFT fleet consists of gasoline-powered, cutaway-style and minivan-style vehicles. All of the cutaway-style bus fleet are lift-equipped and have either three or four securement areas for people using a wheelchair or scooter. Seating for ambulatory customers is a combination of seats fixed to the bus floor and seating that is attached to and can be folded up against the interior wall of the bus, to open floor space for wheelchair securement. Ambulatory seating varies by sub-fleet, with a seated maximum of 13 and a minimum of 6. The number of seats available for ambulatory customers depends on the number of wheelchair spaces occupied. The minivan-style fleet of 8 ramp-equipped vans seats a maximum of 3 ambulatory customers or 1 customer using a mobility device, and is useful when the pick-up location or the drop-off location presents access challenges for the small buses. Cherriots LIFT has a current active fleet size of 43 paratransit buses. The peak requirement for Cherriots LIFT is 37 buses. Please see Table 2-2 for the exact Cherriots LIFT paratransit fleet breakdown and Section 2.8 for contingency fleet information.

Cherriots Regional

The Cherriots Regional fleet consists of 12 vehicles, 8 medium-duty buses and 4 cutaway-style vehicles. Regional buses are equipped with wheelchair lifts. Ambulatory seating varies by vehicle size with a seated maximum of 28 and minimum of 3. The number of seats available for ambulatory riders depends on the number of mobility device spaces occupied. Cherriots Regional has a current active fleet size of 11 buses. The peak requirement for Cherriots Regional is 12 buses. Please see Table 2-3 for the exact Cherriots Regional fleet breakdown and Section 2.8 for contingency fleet information.

Cherriots Shop and Ride

The Cherriots Shop and Ride fleet consists of 5 vehicles: 3 cutaway-style and 2

minivan-style. Shop and Ride buses are equipped with wheelchair lifts. Ambulatory seating varies by vehicle type and size with a seated maximum of 13 and minimum of 3. The number of seats available for ambulatory riders depends on the number of mobility device spaces occupied. Cherriots Shop and Ride have a current active fleet size of 5 buses, with 1 spare. The peak requirement for Cherriots Shop and Ride is 4 buses. Please see Table 2-4 for the exact Cherriots Shop and Ride fleet breakdown and Section 2.8 for contingency fleet information.

Cherriots Support Vehicles

Cherriots Support Vehicle fleet consists of sedans, SUVs, trucks, and minivans. There are 18 Cherriots Support Vehicles currently.

Software Programs

The Maintenance Department currently operates using FleetNet for its fleet maintenance and parts inventory control. It also interfaces to our run-cutting software Trapeze. The Maintenance Department also uses FleetNet to compile and generate reports to compute budgetary and expense information, track road call summaries, and for tracking mileage data.

Cherriots uses FuelServe (FuelSource) for vehicle fueling which also an authorized employee to use an assigned card or their employee number to complete a fueling transaction.

2.6 Service Overview

For the fiscal year 2017, Cherriots Local routes averages 2,044,465 revenue miles. The paratransit fleet averages 752,523 revenue miles. Vehicles are in operation approximately 6:00 a.m. to 9:00 p.m.

Time spent outside of revenue operation is used for performing all necessary service, cleaning, and maintenance to the vehicles. The Cherriots Dispatch Office is open 3:30 a.m. to 10:30 p.m., Monday-Friday, and is responsible for assigning replacement vehicles when needed, in accordance with the available vehicle list from the Maintenance Department. Expanded service hours are to be determined. Before service operation, all vehicles are given a pre-trip inspection.

Defects found upon completion of the pre-trip inspection are recorded on the DVIR. (See Appendix B for the DVIR). Dispatch is notified of any defects that render the vehicle unusable. Defects are resolved by the Maintenance Department when the vehicle is no longer in revenue operation.

The LIFT Program operations model consists of manifests being created based on

the trip requests received in the Call Center. The manifests are electronically provided to the company that operates the LIFT service. Manifests are then assigned to a vehicle and completed by an Operator. Both the Call Center contractor and the LIFT operations contractor respond to customer contacts. All LIFT maintenance is performed by Cherriots Maintenance Department employees, excluding minor maintenance activities specifically outlined as responsibility of the LIFT contractor. Cherriots has general program and operations direction and oversight responsibility.

2.7 Existing Bus Fleet

All vehicles in operation are wheelchair accessible and adhere to ADA compliance standards.

Table 2-1, Cherriots Local Fixed-Route Fleet, provides detailed information on the vehicles used for fixed-route revenue operations.

TABLE 2-1 - CHERRIOTS ACTIVE LOCAL FIXED-ROUTE FLEET (as of 5/4/18)

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019
101-112	2002	35	12	CNG	Orion 7	17
201-212	2002	40	12	CNG	Orion 7	17
213,214	2004	40	2	CNG	Orion 7	15
115,122	2005	40	8	BD	Gillig	15
215-222	2008	35	10	CNG	Orion 7	11
223-226	2008	40	4	BD	Gillig	11
227,234	2011	40	8	BD	Gillig	8
123-126	2011	35	4	BD	Gillig	8
127-130	2012	35	4	BD	Gillig	7
1801-1806, 1851-1856	2019	35/40	12	CNG	Gillig	0
TBD	2020	35/40	14	CNG	Gillig	0
TBD	2021	35/40	8	CNG	Transit	0

Table 2-2, Cherriots LIFT Paratransit Fleet, provides detailed information on the vehicles used for paratransit operations.

TABLE 2-2 - CHERRIOTS LIFT PARATRANSIT FLEET (as of 5/4/18)

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019
857-861	2007	22	4	GAS	Champion	12
827-831	2008	22	5	GAS	Elkhart	11
V1655	2008	15	1	GAS	Minivan	11
832,833	2009	22	2	GAS	EK Coach	10
834-837	2010	22	4	GAS	Startrans	9
838-854	2011	22	16	GAS	Startrans	8
862-865	2013	22	4	GAS	Arboc	6
1401-1403	2014	15	3	GAS	MV-1	5
1404-1407	2015	22	4	GAS	MV-1	4
TBD	2019	22	5	GAS	Glaval	0
TBD	2020	22	12	GAS	Cutaway	0
TBD	2021	22	15	GAS	Cutaway	
TBD	2022	22	4	GAS	Cutaway	

Table 2-3, Cherriots Regional, provides detailed information on the vehicles used for regional operations.

TABLE 2-3 - CHERRIOTS REGIONAL FLEET (as of 5/4/18)

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019
353-354	2004	33	2	Diesel	Freightliner	15
355-357	2006	34	3	Diesel	Freightliner	13
304	2009	25	1	GAS	Ford 450	10
305	2010	25	1	GAS	Ford 450	9
358-359	2010	33	3	Diesel	Champion	9
360	2010	33	1	Hybrid	International	9
307	2012	24	1	GAS	Ford 450	7
TBD	2018	35	3	Diesel	Bluebird	1
TBD	2020	35	2	Diesel	TBD	

Table 2-4, Cherriots Shop and Ride Fleet, provides detailed information on the vehicles used for paratransit operations.

TABLE 2-4 - CHERRIOTS SHOP AND RIDE FLEET (as of 5/4/18)

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019
503,503	2007	22	2	GAS	Champion	12
504	2010	22	1	GAS	Champion	9
550,551	2010	15	2	GAS	Minivan	9
TBD	2019	22	1	GAS	Eldorado	0
TBD	2020	22	1	GAS	TBD	

2.8 Contingency Fleet

Contingency Fleet Service Requirements

As of 2018, Cherriots does not maintain a contingency fleet; however, the District has a plan in place for such time a contingency fleet is established. The Cherriots contingency fleet will consist of vehicles that have already reached the end of their useful life and are no longer needed for normal scheduled service. A contingency fleet will be maintained under the following circumstances:

- Restoration of previously reduced service.
- Major temporary, dedicated service events such as construction or other interruptions to regular service.
- Major service emergency conditions, like declared natural disasters such as major region-wide flood or winter storm, resulting in a temporary surge for Cherriots ridership demand, or possibly damage to regular active fleet buses requiring temporary substitution of contingency buses for regular buses until the regular buses can be returned to service.
- Sudden surge in Cherriots ridership demand due to national or regional

fuel emergencies.

Cherriots shall send a letter of notification to the FTA should there be a need to fully reactivate a contingency bus for active service.

Contingency Fleet Maintenance
At the time Cherriots establishes a contingency fleet, contingency buses will be removed from normal scheduled maintenance and put into a Contingency Bus Inspection (CBI) program, which is performed every 90 days. CBI inspections consist of: brake adjustments, air, electrical, throttle, interlock system operation check and fluid level check for all contingency buses.

2.9 Operating Spare Ratio

Fixed-Route
Bus Maintenance's current standard is to maintain at or below a 20% spare ratio to assure vehicle availability, optimize maintenance costs, and is based upon PM peak pullouts. This ratio calculated for 35' and 40' buses only.

Paratransit
The goal for Cherriots LIFT service delivery is to maintain above a 16% spare ratio, which is based upon average peak pullouts. As of March 2018, the maximum peak pullout was 31 vehicles.

2.10 Current Maintenance Staffing

The Cherriots Maintenance Department currently has 34 employees that include: Department Manager, Vehicle Maintenance Supervisors, Facilities Maintenance Supervisor, Journey Mechanics, Service Technicians, Service Workers, Facilities Maintenance Workers, Procurement Assistant, Parts and Supplies Clerk, and Staff Assistant. Department personnel may work any of four (4) shifts over a five-day period, performing varied tasks.

Cherriots Maintenance employees operate on a 22-hour, five-days-a-week work schedule. All shifts are staffed to accommodate scheduled PM and fleet modifications, as well as unscheduled repairs when vehicles are out of operation. Shifts are scheduled so there is an overlap between shifts for continuity of operation. Table 2-5, Cherriots Maintenance Employee Shift Distribution, illustrates employee distribution by shift.

TABLE 2-5 – Cherriots Maintenance Employee Shift Distribution

POSITION	DAY	SWING	NIGHT	*OTHER
Journey Mechanic	5	4		
Service Technician	3	2		
Service Worker	3	3		
Facilities Service Worker	4	3		
Procurement Specialist	1			
Parts and Supplies Clerk	1			
Maintenance Supervisors	1	1		
Maintenance Training Supervisor	1			
Maintenance Administrative Assistant	1			
Maintenance Manager	1			

2.11 Employee Performance

Cherriots has an annual performance appraisal program using forms that are periodically revised to better address performance criteria and to improve the quality of the appraisal. Training is also provided to supervisors to assist them in the process and outcome. Cherriots subscribes to a positive corrective action approach, as well as a progressive discipline program in addressing performance deficiencies. Employees are recognized and rewarded for system-improving suggestions and ideas.

Training is regarded as an essential element in our effort to improve maintenance productivity. Maintenance training is directed toward developing and upgrading skills necessary for proper vehicle maintenance, equipment modification, system procedures, and new equipment orientation. The program also focuses on management to enhance leadership skills and supervisory practices to increase productivity levels and maintain a responsible maintenance environment. In-house training consists of both classroom and on-the-job training. Equipment and product vendors periodically hold seminars and training sessions at Cherriots facilities.

2.12 Maintenance Performance Indicators

Fixed-Route

Each year, the Maintenance Department identifies goals critical to successful performance of the fixed-route fleet. Vehicles must be reliable, clean, safe, and accessible for both internal and external customers, and annual goals are directed at meeting those standards in a cost- effective manner. A monthly benchmark report tracks the ability of the Maintenance Department to meet its goals. There are two targets for fiscal year 2017-2018:

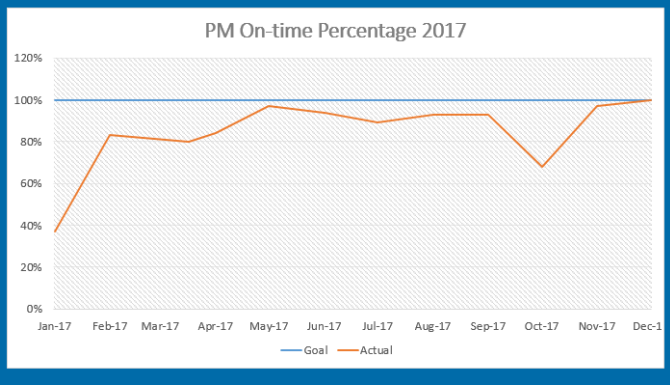
1. Overall miles between major mechanical failures is 9,000 miles or greater.

2. PM compliance is at 100 percent or greater.

Previous goals have focused on overtime costs, spare ratio, preventive maintenance, on-time compliance, maintained pullouts, frequency of interior cleaning and steam

cleaning, and repair to payroll hour ratios in addition to attendance, inventory value, cost per vehicle mile and road call mileage (Figures 2-1). When goals are consistently met, they become a regular part of operations and other goals are introduced.

Figure 2-1. Cherriots PM On-time Performance



* Jan-17 >40%: Due to significant weather episodes.

Figure 2-1. Cherriots Cost Per Mile Diesel Fleet

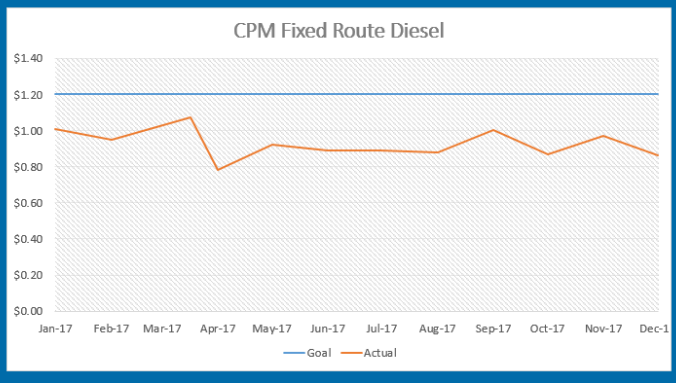


Figure 2-1. Cherriots Cost Per Mile CNG Fleet

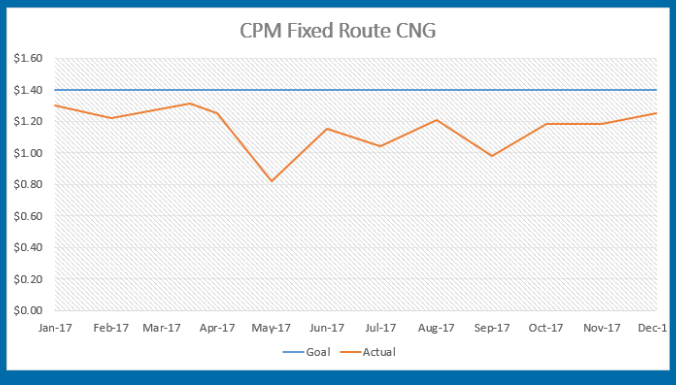
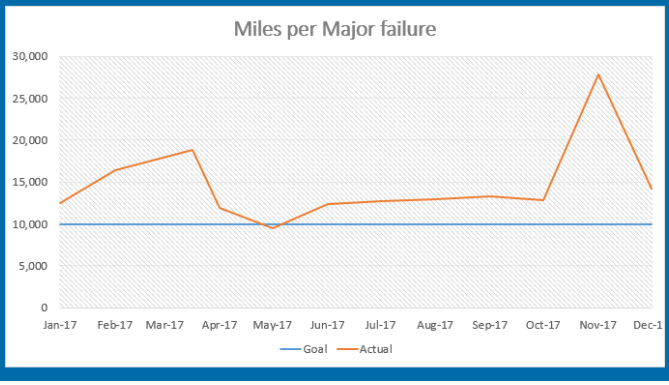


Figure 2-1. Miles per Major Mechanical Failure Fixed Route



2.13 Scheduled Maintenance

Fixed-Route

All local fixed-route, LIFT, Regional, and Shop and Ride vehicles are scheduled for regular preventive maintenance. Preventive maintenance schedules vary in accordance to the system on which the maintenance is performed. Inspection procedures vary slightly depending on the model and make of the vehicle and its components.

General Preventive Maintenance

- 'A' Inspection – Oil change, oil sample, engine pressure wash interior/exterior inspection, chassis lubrication, brake inspection, differential fluid level reading, farebox inspection.

- 'B' Inspection – 'A' inspection, plus wheelchair lift inspection, and transmission sample.

- 'C' Inspection – 'B' inspection, plus engine valve adjustment, air conditioning inspection, air system serving, and CNG tank inspection (if equipped).

- 'D' Inspection – 'C' inspection, plus valve adjustment, cooling system service, transmission service, air cleaner replacement, pack wheel bearings, and hydraulic and differential fluid change.

The schedule for general preventive maintenance varies by fleet and/or engine manufacturer. Anytime drive train fluid is removed, oil analysis is used to

determine the optimum extended oil change interval. The interval for each type is listed in Table 2-6, General PM Intervals.

TABLE 2-6 – General PM Intervals Rotation A,A,B,A,A,C,A,A,B,A,A,D

MODEL YEAR	BUS SERIES	A	B	C	D
2002	101-112, 201-212	6,000	18,000	36,000	72,000
2004	213,214	6,000		12,000	24,000
2005	215-222	6,000		12,000	24,000
2008	113-122 223-226	6,000		12,000	24,000
2011	123-126, 227-234	7,000		14,000	28,000
2012	127-130	6,000		12,000	24,000
2001	2501-2560	7,000		14,000	28,000
1998	2259-2318	7,000		14,000	28,000
1998	2201-2258	7,000		14,000	28,000
1997	2101-2165	7,000		14,000	28,000
1997	2101-2165	7,000		14,000	28,000
1997	2001-2022	6,000		12,000	24,000
1992	1901-1910	12,000		24,000	48,000
1992	1701-1808	10,000		20,000	40,000
1991	1631-1643	12,000		24,000	48,000
1990	1601-1630	12,000		24,000	48,000
1990	1401-1463	12,000		24,000	48,000

Transmission Preventive Maintenance

- During 'T' Inspection (every 18,000 miles) – Visual inspection, fluid drain and filter change, record fault codes, ATF sample and road test for proper shifts and retarder functions.

- 'LR' Inspection (every 72,000 miles) – 'L' inspection, plus pan drop for metal and clutch check, and operating pressure check, along with fluid replacement.

Engine Preventive Maintenance

- 'E' Inspection (every 50,000 to 75,000 miles, depending on fleet) – Manual and electronic idle and valve checks and tune-up inspection.

Air Conditioning Preventive Maintenance

- 'ACB' Inspection (every 24,000 miles) – 'ACA' inspection, plus clutch bearing lubrication, pressure and temperature check, and filter replacement.

- 'ACC' Inspection (every 48,000 miles) – 'ACB' inspection, plus compressor area steam cleaning, voltage/amperage readings from motors, and compressor operating efficiency tests.

Brake Preventative Maintenance

- PM Inspections are performed on brakes every 6,000 miles.

- Brakes efficiency is checked with an electronic brake de-accelerometer after any brake repair work and for driver complaints. There must be a 50% efficiency rate at 20>MPH.

- Application valve, parking brake valve, and relay valves are checked for leaks and performances at 6,000 mile intervals and rebuilt or replaced, as needed.

- Moisture ejector valve is rebuilt and desiccant cartridge is changed, as needed.

- Major brake overhaul intervals occur at an average of every 100,000 miles, because buses are equipped with retarders. Overhauls include the following:

    - Relining

    - Drums turned

    - All seals replaced

    - Worn and damaged components checked and replaced

    - S-Cam and bushings inspected and replaced, as necessary

    - Wheel bearings cleaned and repacked and new seals installed

    - Bus is test driven and checked with brake meter

    - Non-asbestos lining is used on all reclining

Differentials Preventative Maintenance

- Done in conformance with manufacturer's suggested service intervals.

- Gear oil changed at 72,000 PM.

- Life expectancy at 350,000 miles.

Cooling System Preventive Maintenance

- Cooling systems are maintained by providing a source of anti-freeze and water in the bus wash for topping up, as needed.

- The coolant is changed on a 2-year cycle, assuring the coolant is at the proper protection level using both anti-freeze and an additive package. Coolant filters permeated with Nalcool are utilized.

- Repairs to the system are on an as-needed basis. Adding to the cooling system is monitored by the fueling sheets, which indicate coolant usage by coach on a daily basis.

Wheelchair Lift Preventive Maintenance

- 'WLR' Inspection (every 12,000 miles) – Clean platform, check ride and step height, inspect system for leaks, and lubricate all moving parts.

- 'WLX' Inspection (every 48,000 miles) – 'WLR' inspection, plus fluid and filter change.

Restraints

- All vehicles are equipped with a Q-Straint 4-point wheelchair restraint system.

Other Preventive Maintenance

- 'FB' (Farebox) Inspection (annual inspection) – Coin mechanism, bill transport, coin escrow, bill stuffer, logic board, and lock inspection, lube, adjust, and bulb replacement, as needed.

- 'CAM' (Camera System) Inspection (every 12,000 miles) – Procedural check of all cameras, data packs and data recorders.

- 'CBI' (Contingency Bus) Inspection (every 90 days) – Brake adjustments, air, electrical, throttle, and interlock system operation check, and fluid level check for all contingency buses.

Oil Sampling

Oil samplings are taken at each oil change. In addition to determining oil and filter service intervals, sampling provides specific data on the levels of contamination present, such as coolant, soot, or high metal content.

Transmission and differential samples are taken if problems are suspected. The most recent result of sampling is studied by management and placed in a file for each engine. Appropriate preventative steps are taken, and repairs are performed, as necessary.

Sampling of bulk supplies at the time of delivery is taken periodically to ensure quality and consistency.

Electrical Component Rebuild

Electrical components are rebuilt on an as-needed basis or as bench work, time permitting. Starters, motors, relay boards are checked to determine what is needed. Personal computer boards are repaired or replaced as needed. Typically, alternators and starters are sent out for rebuild. Armatures are turned and cleaned, brushes are replaced, coils are repaired or replaced, and new bearings and seals are installed.

Farebox Maintenance

Electronic registering fareboxes are regularly maintained and repaired, as needed. A designated area is equipped with the necessary electronic repair equipment to do all repairs and adjustments in-house. Fareboxes are probed each night and cashboxes emptied twice a week. Maintenance reports are monitored for problems.

Communications, Electronics, and Security Equipment

All buses in the fleet are equipped with Digital Recorder (DRI) Voice Announcing Systems, an automatic announcement system, triggered by GPS technology.

All buses are equipped with surveillance cameras to record activity within the coach. The system has an ‘event’ button, which preserves a recorded period, as well as an impact sensor.

Setup and troubleshooting is performed as the new buses arrive. Subsequent repairs are performed on an as-needed basis, with the aid of Original Equipment Manufacturers (OEM) and by qualified in-house staff.

Upholstery Repair

Seat coverings are repaired on an as-needed basis. Graffiti is removed immediately upon discovery. The Maintenance Department performs all repairs and re-

upholsters in-house.

Bus Towing

Emergency repairs are made at the site of failure if the responding mechanic determines it can be done safely and efficiently. All towing is done by an outside towing service.

Daily Vehicle Inspections (DVI)

DVI books are supplied on all buses. There are two books on each bus. One book reflects the prior 30-day pre- and post-trips, along with defects that have repairs signed by Maintenance staff. The second book is the current book that contains the most recent defects and repairs.

DVIs are delivered to the Maintenance facility nightly after the runs are completed. All write ups are checked out before the bus is returned to service. Depending upon the severity, some may be repaired immediately, while others may be deferred to a later date or determined unjustified.

DVIs are filed for reference and retained in accordance with the archive retention schedule.

A process has been developed that allows Maintenance to correspond to the Operators on all repairs completed.

Tires

Cherriots currently has a tire lease Agreement with Michelin. This Agreement include tires for the Cherriots and Cherriots LIFT services.

The Maintenance Department personnel perform all mounting, dismounting, and minor repairs to the tires. The tires are branded with an identifying number that is used to rack the tire throughout its life using the FleetNet tire module. Air pressure and tread wear checks are performed weekly on the fleet.

- Front
    - Tires are removed at 8/32’ to use at a rear tire position.
    - 4/32” tread depth minimum on any major tread groove on front axle.
    - A front end alignment is performed whenever abnormal tire wear exists.

    - Toe in is checked every 36,000 miles.
    - These tire casing are recapped once and used on the rear.

- Rear

    - 2/32” tread depth minimum on any major tread groove on the rear axle.
    - Sidewalls are monitored for curb scuffing.
    - Tire pressure, wear and tread depth.

    - Each week every tire is checked.
    - Minimum tire pressure is maintained for maximum tire life, as recommended by tire manufacturer.

- Wheels

    - Checked for cracks during mounting and painting.
    - Sandblasted, inspected and repainted when a new tire is installed.

Inventory and Parts

The parts inventory consists of approximately 2,700 different line items.

Inventory is stocked in five locations:

- Parts Room for smaller, fast-moving items
- Receiving area for large, bulky items
- Tire Room for tires and wheels
- Mezzanine area for body panels, glass, and slow-moving items
- Maintenance Shop and Fuel Island for oil and anti-freeze barrels

Parts are recorded in inventory and the computerized inventory system by:

- Major component classification
- Part number
- Location
- Bin location

Physical inventory is taken at the end of each fiscal year. Physical inventory counts are handwritten on computer-generated count sheets by location. An employee, who is not a member of the counting team, then enters the counts into the computer. Upon completion of the physical inventory, a computer printout is made

of the total parts inventory valuation. This inventory valuation, together with the original count sheets and “issued/receipts” location sheets, are turned into the Operations Division. The Operations Division, which has kept a separate inventory count during the year, then reconciles and makes the necessary adjustments. This process is done in June of each year, and is monitored by an auditor who ensures the validity and accuracy of the inventory process and its resulting figures.

Parts Issues

All parts issued are entered into the computerized inventory system. The Repair Order form provides the data for entering parts issued, as well as labor associated with the vehicle repairs. The parts inventory is automatically adjusted by charging out the part from the inventory to the repair order. This is done by data entry in the Fleetmate computer program. The labor hour portion of the repair order records all labor segments for each repair performed, thereby completing the total repair cost on that repair order.

Parts Receipts

Cherriots purchase order with the vendor packing slip, or invoice, provides the necessary data for the parts receipt transaction. Information included on these documents includes:

- Vendor name
- Date of order
- Date received
- Part number
- Quantity
- Unit cost
- Total cost

The date parts are received is noted on the packing slip, as well as the receiving clerk’s signature.

Shop Purchasing

Cherriots purchase order is issued to procure shop parts, goods, and services. The purchase order is coded with an appropriate Divisional budget number for each item procured. All procurement action is initiated by a requisition, which is reviewed and approved by the Maintenance Manager.

For individual parts, goods, and/or services in excess of $2,000.00, at least three supplier quotations must be solicited and submitted with an approved requisition prior to approval of a purchase order. The criteria used in soliciting quotes for Maintenance Shop parts and supplies are: best quality, best cost, timely delivery. Prior to any purchase, all applicable supplier catalogs are consulted.

Diesel and gasoline fuel is purchased via spot pricing using four different fuel vendors. Diesel and gasoline purchases are made on an as-needed basis.

Warranty Procedures

Currently, SAMTD does not have any vehicles in service that have remaining factory warranty. Only component warranties are in effect.

Warranty claims vary by supplier and the nature of the product. Claims are processed in a variety of ways: warranty service orders, phone calls, faxes, and meetings with supplier representatives, until a satisfactory settlement has been received. Warranty claims are recorded prior to submission to the manufacturer. While most repairs are performed by the manufacturer's staff or by other qualified representatives, Maintenance staff track labor hours for work they perform on warranty items. The manufacturer typically supplies replacement parts.

When a warranty payment is received during the same fiscal year as the original payment, the amount is credited back to the same account charged when the original payment was made. Copies of original invoice and entry sheet are used as back-up.

When components on vehicles fail, a Maintenance Mechanic reviews the components history via FleetNet. If there is a possibility of warranty existing, the component is given to the Parts Department for further investigation.

If warranty exists, the supplier is contacted and the item is logged on the warranty tracker. When the claim is complete, the results are also logged. In most instances, SAMTD is issued a replacement part. Some instances such as batteries, the item is prorated or a credit is issued.

If the vendor issues a credit memo, once it is received, it is posted back to the same purchase order/invoice/account number that the original payment was made against.

Core charges when paid are charged to a separate account line item. Cores

returned are credited back to this account. This account is reconciled to ensure all credits and charges are accurate.

Typical warranties include:

- Propulsion Systems
  - Engines
  - Transmissions

- Subsystems
  - Wheelchair ramps, dryers, and door systems
  - Brake systems, heating, ventilation, and air conditioning
  - Air compressors and starters/alternators
  - Destination signs, digital recorders, radios
  - Surveillance cameras
  - Batteries

Paratransit

The paratransit fleet has a two-level preventive maintenance inspection program: 'A' level service every 5,000 miles for minivans or every 6,000 miles for LIFT buses, and 'B' level service every 30,000 miles for all LIFT revenue vehicles. As with fixed-route inspections, the 'B' service is more progressive than the 'A' service. These consist of eight service sections:

1. Test drive – Inspection includes: starter, warning devices, dashboard gauges, interior lights and switches, steering wheel play, fast idle switch, heater, air-conditioner, horn, fire extinguisher, seatbelts, wipers, parking and foot brakes and interlock, and record engine rpm and oil pressure.

2. Under chassis and lube – Inspection includes: steering assembly and U joints, kingpins and tie rods, front axle assembly, sway bars and linkage, springs and shocks, brakes, drums, wheel seals, driveshaft, differential, drain transmission fluid/replace filter/refill, fuel tanks and lines, frame and cross members, and lube complete unit.

3. Service – Inspection includes: exterior lights, windshield cleaner fluid, condition of wiper blades and arms, mirrors, body condition, bumpers/mud flaps/brackets, headlamps, take oil, coolant and transmission fluid samples for analysis, coolant, drain fuel/water separator and crankcase, and replace fuel and oil filters.

4. Upper chassis, engine and electrical – Inspection includes: exhaust system, power-steering fluid, fan shroud, water pump, belts, AC

compressor, alternator, air-intake filter, and batteries.

5. Engine inspection (with engine running) – Inspection includes: recording oil pressure, filters, lines and gaskets, exhaust, and fault codes.

6. Wheelchair lift (ramp on minivans) – Inspection includes: operation, lube, check for loose hardware and fluid leaks, and warning buzzer.

7. Tires and wheels – Inspection includes: record tread depth and tire pressure, visual inspection for wear or damage, and wheel nuts and axle flange nuts.

8. Final inspection – Inspection includes: check engine oil level, check for additional PM to be performed, and update PM sticker.

Through oil analysis, the 6,000 mile PM interval was deemed too long for vehicles equipped with the Ford 6.0 motor. A new PM measure ("1OF") was implemented to change the oil and filter at 3,000 miles to combat fuel dilution occurring in the oil due to the specific duty cycle of a shuttle bus, which includes an inordinate amount of idling.

2.14 Scheduled Predictive Maintenance

Fixed-Route

Predictive maintenance is performed on components that have exhibited a determined lifetime. Components are identified for predictive maintenance in accordance with their frequency of unscheduled repairs. Component replacement history by fleet type is statistically reviewed to determine the optimum replacement schedule. Cherriots currently has numerous components on a predictive maintenance schedule: air dryers, brake application valves, brake relay valves (front and back), air compressors, alternator bearings, fuel pumps, water pumps, turbochargers, operator seats, diesel particulate filters, DEF filter, air cleaners, interior cabin filters, Amorex fire suppression actuators, some transmissions, suspension airbags, windshield wipers, fuel injectors, electric starters and engine thermostats.

Cherriots is always evaluating and identifying bus components that could be placed on a predictive replacement interval.

Paratransit

There is no scheduled predictive maintenance program currently in place for the LIFT fleet.

2.15 Unscheduled Maintenance

Fixed-Route

Unscheduled maintenance is classified into four categories: Road calls, pullout repairs, operator reported defects, and yard/field repairs.

- Road call repairs: A repair where a disruption of service has occurred or a vehicle is traded out of service due to mechanical, or safety concerns.

- Pullout repairs: Problems with a vehicle, typically minor mechanical or safety issues, that are found by the Operator that must be fixed before the vehicle is put into service.

- Operator reported defects: Problems with a vehicle that do not warrant a disruption of service and are mainly comfort, cosmetic, or minor mechanical issues.

- Field repairs by downtown mechanics and yard repairs: Repairs done to the vehicle within the yard confines, typically for cosmetic or minor mechanical issues at fixed locations or transit centers.

All unscheduled maintenance is entered into the FleetNet and corrective actions to remedy the problem are recorded. Those that are safety-related or likely to result in a road call, are repaired before being returned to service. Defects not falling into the above categories, but not able to be repaired immediately, are deferred and scheduled for further repairs at a later date.

Paratransit

Unscheduled maintenance is identified on the fleet of LIFT vehicles: at the time of the Operator's pre-trip inspection before pull-out, during service when a road call or vehicle tow is required, and in response to a written Operator defect report submitted to Maintenance. Safety- and maintenance-related issues that do not allow for safe operation of a vehicle, are repaired before the vehicle is used to deliver service. LIFT utilizes FleetNet to save all repair history in regards to vehicles.

2.16 Cleaning Program

Fixed-Route

During the nightly service process, where buses are refueled and have their fluids checked, each interior is cleaned to remove dust, trash, etc., before being run through a wash rack for exterior cleaning. In addition, floors are mopped, as

needed, but no less than once per week. Wheels are cleaned regularly, at no less than once per week.

Paratransit
Cleaning of buses is part of the transportation providers' contract. Operators daily sweep out buses, remove trash from vehicles and spot clean windows, surfaces and floors, as needed. The transportation provider contracts with a vendor who performs thorough interior cleaning and exterior cleaning.

2.17 Bus Maintenance Facilities

Fixed-Route
Bus Maintenance is headquartered at 3140 Del Webb Avenue, Salem, Oregon. The Del Webb facility was built in 1968, and has undergone several remodels and additions. Fleets consist of 35' and 40' buses. Bodywork is contracted by local vendors. Transmissions needing rebuilt are sent to vendors for repairs. All other repairs are performed in-house. Cherriots Facilities Department maintains the bus garages.

Paratransit
LIFT operations is located at 2195 Hyacinth Street NE, Salem, Oregon. All vehicle maintenance (excluding identified light maintenance items: replacing headlights, taillights, wiper arms and blades, adding washer fluid and topping off engine oil/transmission fluid) is performed at the Maintenance facility. Buses are transferred from their operating base to the Maintenance facility for necessary preventive maintenance and repairs. Body damage repairs are done by outside contractors. LIFT maintenance has 10 bus bays equipped with lifts.

3. Fleet and Fleet Management

3.1 Quality of Service – Fixed-Route and Paratransit

Connecting people with places through safe, friendly, and reliable public transportation services is a key element to the Cherriots system. Safe, frequent, reliable and comfortable service on modern vehicles is fundamental to improving service quality and attracting new riders. Cherriots will maintain and improve the quality of its transit service as described below.

Safety and Security
Ensuring safe operation of transit service and safe design of transit facilities and equipment is embedded into all Cherriots activities. Similarly, all Cherriots employees serve as 'eyes and ears' for security awareness.

- Procurements and construction of new buses and facilities include safety requirements in design and performance specifications, which are verified in design reviews and testing. Safety hazards are formally identified, assessed, and resolved as part of developing specifications and designs. Acceptance testing against safety-related design and performance requirements is formally performed and documented. Certification that all safety design requirements have been met, as well as the following operational safety requirements, is required before completed facilities and equipment are placed into passenger service. Standard Operating Procedures (SOPs) govern all operations, to assure safety and quality.

- Safety training for employees is formal and documented, specific both to job classification and the specific equipment or facility involved.

- Emergency response drills are conducted periodically.

- Every accident is analyzed for preventability, with lessons learned implemented by improvements to procedures, training, or equipment, as appropriate.

- Safety audits are performed on an ongoing basis, and the Federal Transit Administration (FTA) performs safety program oversight.

Security programs include:

- All Cherriots employees serve as ‘eyes and ears’ for security awareness and reporting.

- Security procedures assure rapid and assured communication and response to a reported security situation. Cherriots Dispatch works closely with 9-1-1 dispatch centers to assure the fastest possible police or emergency response.

- Cherriots buses have security cameras onboard.

Frequency and Levels of Service
Service frequencies often reflect the demand for service; however, Cherriots understands the importance of frequency as it applies to quality of service. Frequent service contributes to ridership in several ways:

- It reduces actual and, even more substantially, perceived travel time by transit.

- It makes the need to transfer less onerous. Given contemporary multi-destination travel patterns, Cherriots cannot connect all the origins and destinations with direct service. If the transfer wait time is short and the transfer environment is good, customers will be much more willing to transfer.

- It makes transit convenient, an essential element in attracting more trips.

3.2 Reliability

On-time performance is the measure of how close a bus adheres to its schedule. Schedules are designed to give riders certainty about when their bus will depart so they can make informed decisions about when to travel.

However, it is difficult to predict exactly when a bus will arrive at every bus stop due to changing conditions on the ground, fluctuations in traffic, number of mobility devices, etc. As a result, on-time performance is measured only at bus stops with scheduled departure times, known as time points. Additionally, buses are considered ‘on time’ if they depart up to five minutes late from their time points. On-time performance is measured on the route level and system level, both for the entire day and the PM peak (2:00 p.m. – 6:59 p.m.)

At least 85% of buses should depart time points no more than five minutes late (75% in PM peak). No more than 10% of buses should depart their time points between five and 10 minutes late (15% in PM peak). No more than 5% of buses should depart their time points more than 10 minutes late (10% in PM peak). No buses should depart their time points before their scheduled departure times.

3.2.1 On-Time Performance

Fixed-Route

A bus is considered on time if it arrives at the published schedule time, but not early, or is less than five minutes after its scheduled departure time. Information on bus arrival times is regularly collected and summarized at least twice a year. The goal is for at least 85 percent of all bus trips arrive at time points 'on time' during an average weekday.

Paratransit

A LIFT ride is considered on time if the vehicle arrives within a 30-minute window that is given to the customer at the time the ride is reserved. The on-time standard for Cherriots LIFT is 98%. Cherriots establishes a 95% goal for on-time arrival for the Cherriots LIFT service.

On-Street Improvements

Traffic preferential improvements along roadways that help improve the reliability of bus service include:

- Keizer Transit Center signal
- Bus stop improvements
- Management and route design measures to reduce run times and improve reliability

Technological Applications

Cherriots is currently working to procure computer aided dispatch and automatic vehicle location (CAD/AVL) software, which will allow all buses to be tracked in real-time, and make it possible to comprehensively measure the share of trips on time, as described in this section. This will also allow us to consider monitoring headway adherence of frequent service – in other words, whether buses are evenly spaced. Until then, staff use a different methodology to sample on-time performance – the best methodology given Cherriots technology and resources. Every April and October, Cherriots uses security cameras at the Downtown Transit Center and Keizer Transit Center to measure end-of-route on-time performance. Buses arriving

five minutes after their scheduled arrival time or later are considered late.

Everything else is considered on time. (The target is 85% on time throughout the day, and 75% on time during the PM peak.) Additionally, Operations Supervisors conduct point checks in the field to ensure buses are not departing their time points early. Once the CAD/AVL solution is fully implemented (likely in 2019), staff will no longer need to sample trips to determine on-time performance.

3.3 Service Delays – Fixed-Route and Paratransit

Miles Between Road Calls

Fixed-Route

Fleet reliability is measured in miles between road calls. In addition to preventive maintenance, the Maintenance Department is now pursuing predictive maintenance where high profile components are replaced on a schedule determined by historical failures.

Road calls are applicable to 30' and 40' buses, and are divided into four categories:

- Major road calls are defined as road calls due to a mechanical failure that affects movement or safety, such as an engine, transmission, brakes or door.

- Minor road calls are defined as road calls due to a mechanical failure of a part that does not affect movement or safety, such as air conditioning or wheelchair lifts or ramps.

- Other road calls are defined as road calls caused by non-mechanical issues, such as accidents or bio-hazards.

- Total road calls are defined as the summation of major and minor road calls.

Chargeable road calls are the basis for performance goals of the Department.

Paratransit

Provider contractor has adopted the new road call reporting process for LIFT maintenance that is similar to the process in place for fixed-route bus maintenance. This mileage is monitored closely for trends of increasing or decreasing road call incidents.

4.Schedule and Ridership

4.1 Schedule Design – Fixed-Route

Cherriots service is designed to meet ridership demands while maintaining a high level of service efficiency. An important component to maintaining this efficiency is in designing service schedules to meet the varying demand levels for service.

Productivity
Service productivity is a measure of how well a service is utilized. To determine productivity, Cherriots measures the number of rides for every hour a bus is in service (rides per revenue hour). Targets for productivity differ depending on the type of route:

- Corridor Routes: 20 rides per revenue hour
- Neighborhood Shuttles: 10 rides per revenue hour
- Regional Express: 10 rides per revenue hour

Bus routes not meeting their targets are evaluated on an annual basis.

In the urban area, 75 % of revenue hours will be deployed with a focus on increasing ridership, predominantly on high demand corridors. This service will include frequent 15-minute service, express service, and standard 30-minute frequency routes, which are expected to provide overall high ridership.

Coverage
The remaining 25 % of urban revenue hours will be allocated to service that provides needed coverage throughout the community, with less consideration for expected boardings per revenue hour. This service will predominantly include neighborhood shuttle routes with 30-minute and 60-minute headways.

Classification
An entire route or individual segments of a route may be classified as either productivity-focused or coverage-focused. Service distribution must remain within plus or minus five percentage points of the target (e.g., 70-80% productivity-focused, and 20-30% coverage-focused).

Network
All local routes are designed either as neighborhood shuttles or corridor routes. Neighborhood shuttles funnel riders into activity centers, and corridor routes

connect those centers at higher frequencies.

Neighborhood Shuttles

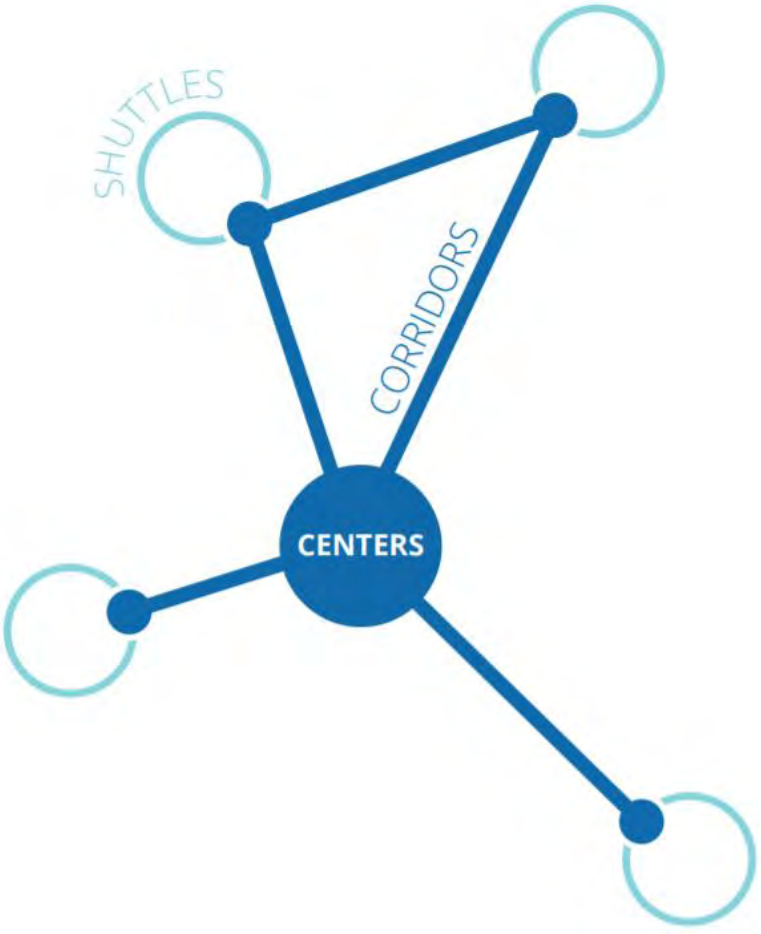
Neighborhood shuttles are focused on getting close to riders and bringing them on short trips to their neighborhood activity centers. Typically, buses used on these routes are smaller, quieter, and more neighborhood friendly. These shuttles can take a variety of forms, including small one-way loops, two-way service, or on-demand service.

Activity Centers

Activity centers are community hubs with a variety of shops, stores, and services. These are both primary destinations for riders, as well as places to transfer between routes. Cherriots builds transit centers at some of these activity centers. Transit centers help facilitate transfers and create a better environment for riders waiting for the bus.

Corridor Routes

Corridor routes serve the main corridors in Salem and Keizer. They also help riders quickly travel between activity centers, ideally, at frequencies of every 15 minutes or better.



Multiple Purposes
Service should help connect businesses, high-density residential, and other activity centers. A route is more useful and productive when there are multiple destinations along its path, with pick-ups and drop-offs occurring throughout the entire length of the route.

Network Connections
Routes should be coordinated in a well-designed network. Transfers between routes allow for a more efficient service that doesn't require as much duplication. Routes should be designed to connect with one another at transit centers and major destinations. Additionally, Cherriots should install appropriate rider amenities at major transfer locations in order to provide riders with a comfortable experience while waiting.

Route Start and End
Ideally, routes start and end at transit centers or major activity centers. This allows for easy access to those places and makes it easier to communicate to riders where a route is heading. The ends of routes should also have a good place for a bus to layover, as well as a place for Operators to use the restroom when possible.

Core Network
When designing and realigning routes, staff must ensure service remains on the Core Network corridors. Additionally, routes on these corridors will receive the priority for frequent service on weekdays and 30-minute service on weekends.

What is the Core Network?
The Core Network is a set of transit corridors where Cherriots has committed to providing stable service with a focus on frequency and reliability. By establishing a sense of permanency and an expectation for high-quality service, the Core Network signals to riders, business owners, and developers where to locate and build if they wish to orient themselves and their businesses around transit.

What gives the Core Network its permanency?
In July 2017, the Cherriots Board of Directors (Board) adopted Core Network Policy 118. The routes serving the Core Network corridors may change over time, but the corridors must be served. Service changes that result in completely removing service from any piece of the Core Network will require formal action from the Board with a public hearing process in advance of implementation.

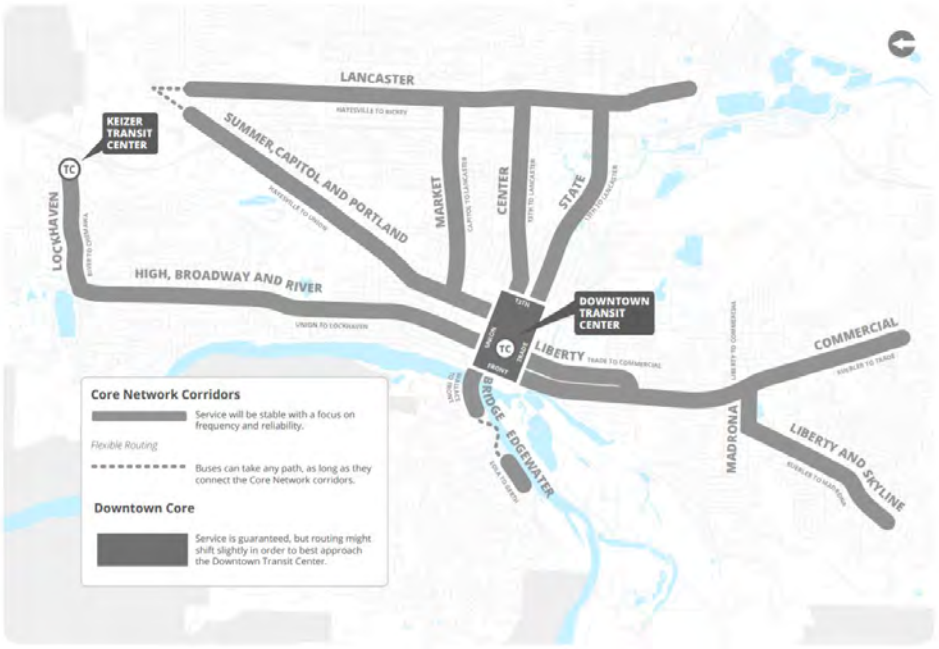
What makes up the Core Network?
The Core Network is comprised of the following corridors:

- High, Broadway, and River Road – Union to Lockhaven
- Lockhaven – River Road to Chemawa
- Summer, Capitol, and Portland Road – Union to Hayesville
- Lancaster – Hayesville to Rickey
- Market – Capitol to Lancaster
- Center – 13th to Lancaster
- State – 13th to Lancaster
- Commercial – Kuebler to Trade
- Liberty – Commercial to Trade
- Madrona – Liberty to Commercial
- Skyline and Liberty – Kuebler to Madrona
- Marion and Center Street Bridges – Wallace to Front
- Edgewater – Eola to Gerth

Flexible Routing
There are also some places where the corridors are disconnected and flexible routing is allowed. Buses can take any path to connect those corridors.

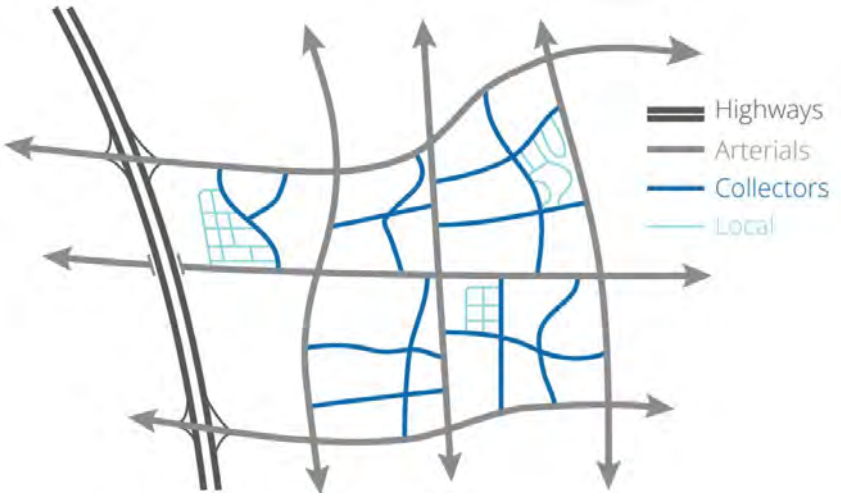
Downtown Core
Cherriots guarantees service in the downtown core (between Front, Union, 13th, and Trade). In the downtown core, routing might shift slightly over time in order to best approach the Downtown Transit Center.

Transit Centers
The Downtown Transit Center and Keizer Transit Center are both considered permanent fixtures of the Core Network.



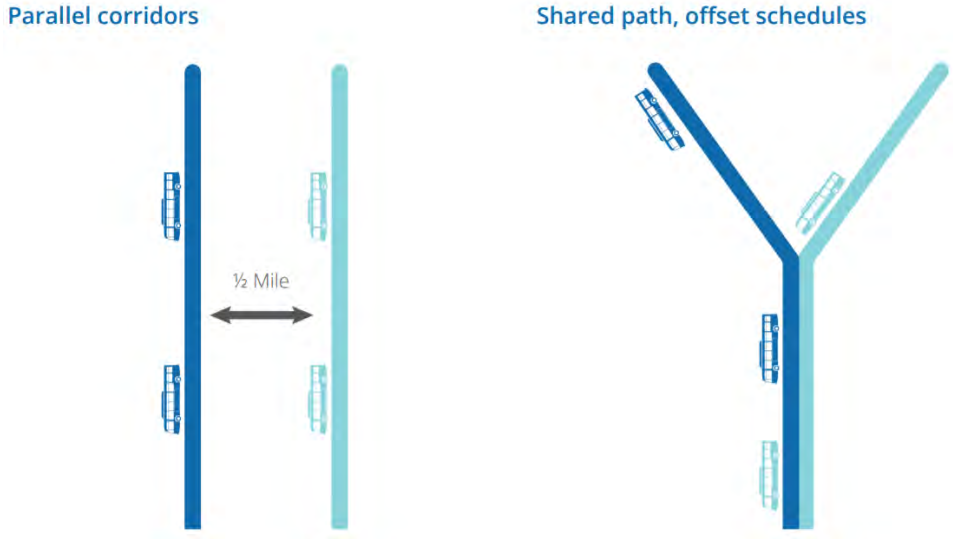
Routing

Buses are routed primarily down arterials and collector roads. Express routes can also be routed down limited access roads, such as highways. When traveling down streets with speed limits 45 mph or greater, however, bus stops should only be placed if they are in a turnout where the bus is pulled out of traffic – as specified in the 2012 ODOT Highway Design Manual. Local streets should be avoided unless there are no good alternatives. Buses should not be routed through parking lots when possible. Finally, routes must be designed to allow for vehicles to make safe turns.



Spacing and Duplication

Routes traveling along parallel corridors should be placed at least ½ mile apart. When routes share a path, their timing should be offset to avoid duplication. For example, two hourly routes sharing a path for half their length should provide 30-minute service along that shared path. This standard does not apply to routes as they are approaching a transit center.

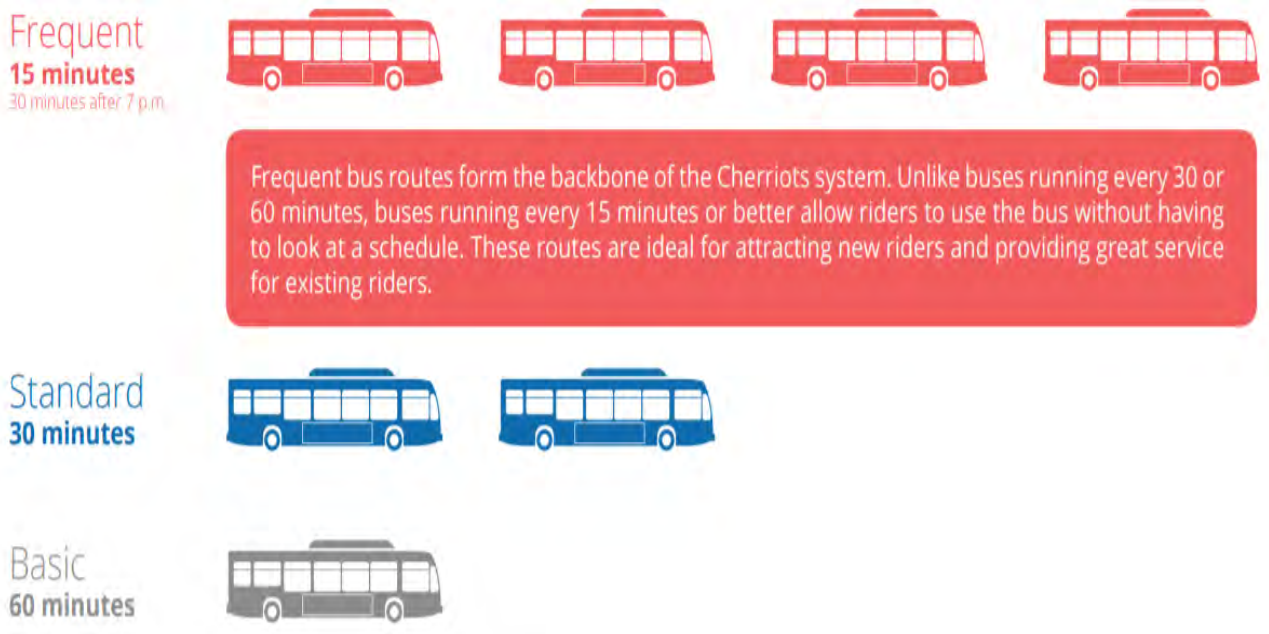


Span of Service
Regular Cherriots service is available between the 5:30 a.m. and 11:00 p.m. on weekdays. Peak periods on these days are experienced between 7:00 a.m. and 8:30 a.m. and 4:00 p.m. and 6:00 p.m.

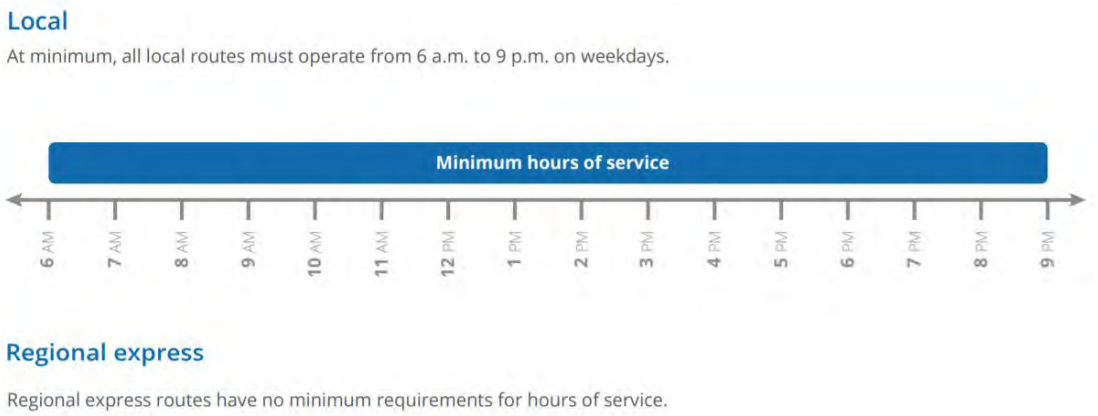
Frequency
Service levels on routes should be appropriate to demand. Local and regional express level of service is expressed differently, as local service often runs multiple times per hour, and regional express service often runs just multiple times per day.

Local
Local Cherriots routes have three levels of weekday service: frequent (every 15 minutes), standard (every 30 minutes), and basic (every 60 minutes). Service is designed to be consistent for most of the day to provide robust mid-day service and to help riders quickly learn how often their bus arrives. At a minimum, local buses must be scheduled to arrive once an hour to provide a base level of service. Public facing system maps currently define standard service as every 30 or 60 minutes.

Regional Express
The level of service for regional express routes is measured by the number of daily round trips, because these buses are scheduled less frequently than local bus service. Buses on express service can either be scheduled throughout the day or only during the morning and evening peaks. At a minimum, regional express routes must have two round-trips per day on weekdays.



A robust span of service is necessary to allow riders to get to work and other appointments early in the morning, and to help assure riders they will have a trip home. Even though buses are likely to be less utilized early in the morning and later in the evening, a good span of service helps build ridership in the mid-day and during the AM and PM peaks.



Time Periods

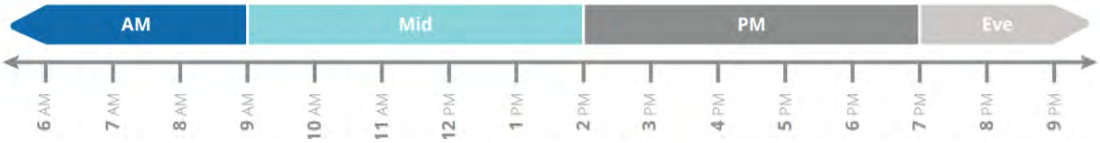
Local

Every trip on a route takes a different amount of time to complete. Often the differences are slight, but during times of heavy traffic or for trips that often have mobility devices, trip time can vary significantly. Although it might be tempting to create a unique schedule for every trip, doing so could be confusing for riders and difficult to remember for operators. In order to strike a balance between these competing needs, Cherriots typically creates different schedules for four periods of time (but can use less or more).

The standard time periods are:

- AM – start of service until 8:59 a.m.
- Mid-day – 9:00 a.m. until 1:59 p.m.
- PM – 2:00 p.m. until 6:59 p.m.
- Evening – 7:00 p.m. until end of service

Scheduled times remain consistent during each period in order to provide consistency. However, schedule times can be different between each period in order to reflect the differences in expected runtime throughout the day.



Regional Express
Time periods are not used for regional express service. Because express service runs less frequently and for much longer distances than local service, custom schedules are developed for each individual trip.

Time Points

Local
Bus stops with scheduled times are called time points. Time points are used to help give riders an idea of when the bus will arrive. They are also used by Operators to help ensure buses remain evenly spaced throughout the route.

Time points on local routes are spaced to balance the need to give riders accurate information with the need to give Operators some flexibility to help with the flow of the route. Typically, time points are spaced every 8-12 minutes. However, on neighborhood shuttles, time points can be spaced as close as every 4-6 minutes.

When deciding which bus stops will be time points, the priority is given to bus stops that:

- Serve a lot of riders
- Are at major intersections
- Are major transfer points
- Have a safe place for the bus to layover

On routes that share a path, time point locations are ideally the same for both routes along the shared stretch.

Regional Express
On regional express routes, typically all bus stops are treated as time points, as there are often long stretches of time between stops.

Runtime
Two methods are used to determine how much time should be scheduled on each route throughout the day: the first method is used when Cherriots already operates bus service along a path and has good runtime data, and the second method is used when service is added to a street that currently does not have bus service.

Currently Served
When Cherriots already operates service along a path, runtime is determined by using real-world observations of current bus speeds. Samples of real bus travel time are collected, and Cherriots determines the 60th percentile running time within each time period. For example, the time it takes to travel between two time points during the AM time period might range between five and eight minutes, but 60% of trips take seven minutes or less. Because of this, seven minutes of runtime will be scheduled for that time period.

New Streets
When developing schedules for service traveling down paths currently not served, Cherriots determines runtimes using the following three methods:

- Assumed speed – For high-level planning, Cherriots assumes buses travel at 15 mph on arterials and 17 mph on collectors.

- Google Maps estimates + 20% – Next, Cherriots uses Google Maps to evaluate travel speeds throughout the day, adding 20% to account for time spent at bus stops.

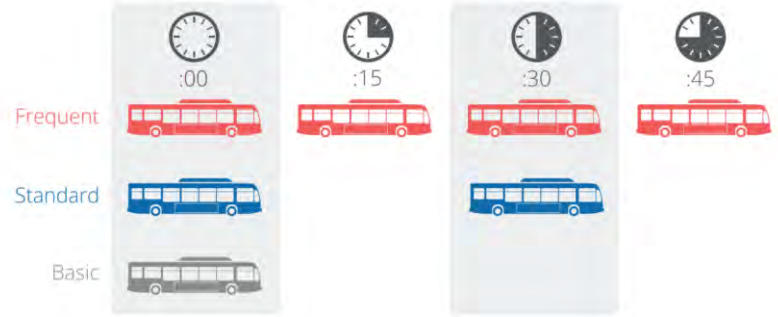
- Drive in buses – Once schedules are drafted using Google Maps estimates, Operators drive the new routes to see if the proposed schedules are realistic. Schedules are then modified based on operator input.

After new routes are put into service, special attention is given to their on-time performance. If there are any issues, they will be addressed as soon as possible.

Timed Connections and Pulsing
For most Cherriots routes, the primary transfer point is the Downtown Transit Center in the heart of Salem. In order to facilitate the transfers taking place at DTC, Cherriots schedules buses to connect on a pulse. A pulse is a timed transfer designed around a clock schedule. Buses typically layover at pulses for longer periods of time in order to ensure riders do not miss their transfers. This is especially important for routes that run infrequently where missing a transfer could mean waiting 30 minutes or an hour for the next bus.

Frequent service pulses at :00, :15, :30, and :45. Typically, standard 30-minute service is pulsed at: 00 and :30, and hourly service is pulsed at :00. However, there are exceptions when two routes share a similar path and are timed to be offset. Regional express routes are pulsed at either :00 or :30 in order to allow riders to transfer to and from the local routes.

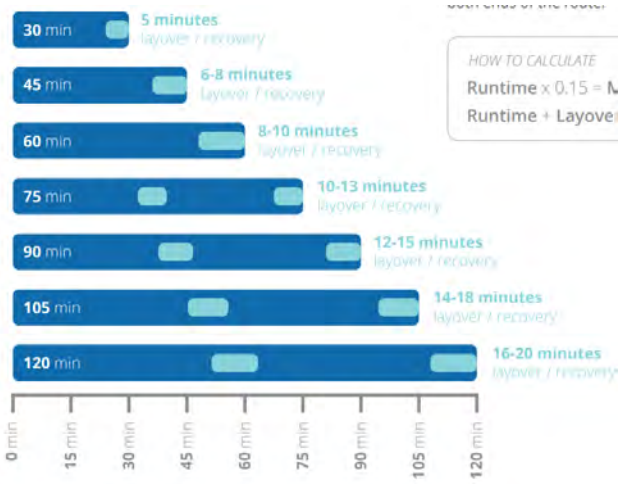
Whenever possible, routes that connect at other locations should be timed together to make it easy for riders to transfer. This can be difficult, however, because the pulse at the Downtown Transit Center has a big impact on when buses arrive at other points along the route. Depending on route length and runtime, timed connections at other places are sometimes possible, such as at Keizer Transit Center.



Layover and Recovery

At the end of a route, there is typically time scheduled both to allow for an Operator break (layover) and for a bus to get back on schedule if it is running late (recovery). Together, this is known as the layover/recovery time.

Layover/recovery should be between 15% and 20 % of a route's runtime (and a minimum of five minutes). Together, the layover/recovery and runtime add up to the total cycle time of the route. If a route's cycle time is more than 60 minutes round trip, layover/recovery time should be scheduled on both ends of the route.



4.2 Route Performance Monitoring – Fixed-Route

Staff routinely monitor performance throughout the year. Cherriots has established a number of performance measures and targets to ensure performance objectives and goals are met. Staff produce performance reports on a monthly, quarterly, and annual basis.

Cherriots monitors service as it enables staff to: make short-term adjustments where problems are occurring; intelligent, make informed decisions during the service planning process; and, measure how a route is performing in relation to how it is expected to perform.

When evaluating route and system performance, the five performance goals used by Cherriots in determining the success of our service are:

1. Productive – Service should be well-utilized in relation to how much service is provided.

2. Efficient – The cost to provide service should be reasonable in relation to how much service is provided and how much that service is used.

3. Reliable – Reliable riders should be able to count on the bus to pick them up and drop them off on time.

4. Comfortable – Riding the bus should be a pleasant experience and not over crowded.

5. Safe – Riders should feel safe and secure when riding a Cherriots bus.

Goal	Objective	Measure	Target	Evaluation Level	
				System	*Route*
Productive	Provide service to as many riders as possible given available service	Riders per revenue hour	***Corridor route:*** 20 rides / hr ***Neighborhood shuttle:*** 10 rides / hr ***Regional express:*** 10 riders / hr	✓	✓
Efficient	Keep costs at reasonable levels	System cost per revenue hour	Year-over-year increase less than regional consumer price index	✓	✓
		Operating cost per ride	*No specific target; for reporting purposes only*	✓	✓
	Be good stewards of public funds	Share of fare revenue in relation to operating costs	*No specific target; for reporting purposes only*	✓	×
		Operating subsidy per ride	*No specific target; for reporting purposes only*	✓	✓
Reliable	Ensure trips depart on time	Share of trips on time, late, very late, and early	***All day:*** 85% on time, 10% late, 5% very late, 0% early ***PM:*** 75% on time, 15% late, 10% very late, 0% early	✓	✓
	Maintain enough buses and available operators to run scheduled service	Share of maintained pullouts	99.5% or higher	✓	×
	Maintain buses to avoid mechanical failures while in service	Frequency of mechanical failures resulting in a road call	Less than one for every 10,000 vehicle miles traveled	✓	×
Comfortable	Limit number of standing riders	Average rider to seat ratio at maximum load point	***Local:*** 1.3 ***Regional express:*** 1.0	×	✓
Safe	Limit preventable bus collisions	Frequency of preventable bus collisions	Less than 2 for every 100,000 total miles traveled	✓	×

Performance Monitoring and Reporting

Performance is monitored throughout the year. Reports are published monthly, quarterly, and annually, and compare current performance to the performance over the same period during the previous year.

- Monthly – Monthly Performance Reports are published on the fourth Thursday of the month, following data collection. These reports are used to guide decisions about route maintenance for the triannual service changes.

- Quarterly – Quarterly Performance Reports are three month summaries of each fiscal quarter. These reports are presented to the Board on the fourth Thursday, two months following data collection and are primarily used to keep the Board informed about route and system performance. (Q1: Jul-Sep • Q2: Oct-Dec • Q3: Jan-Mar • Q4: Apr-Jun)

- Annual – Annual Performance Reports are yearly summary reports for the fiscal year. Additionally, they include individual route profiles. The reports are published by the first Thursday in September and presented to the Board on the fourth Thursday of September. Results from the reports are used to inform the needs assessment.

Service Assessment

Once data and input are gathered and analyzed, Cherriots assesses whether current transit and transportation options in the service area meet the needs of the community.

Staff begin by evaluating the route path, trip time, frequency, span, and performance of current Cherriots bus routes.

Staff then look at other services Cherriots operates or facilitates in the region, including:

- Cherriots LIFT – Paratransit service for the Salem-Keizer UGB.
- Cherriots Shop and Ride - Both a shopper shuttle and dial-a-ride for seniors and individuals with disabilities.
- Polk County Flex – A shared-ride reservations-based service for Dallas, Monmouth, and Independence.
- Vanpools – Facilitated by the Cherriots Trip Choice program. Vanpools are organized and subsidized for those with similar travel patterns.

Finally, Cherriots evaluates other transportation services provided in the area, including city circulators and dial-a-rides, intercity transit routes, non-emergency medical transportation (NEMT), and private transportation services.

Cherriots also modifies bus schedules and routes to manage capacity and maximize service productivity. Productivity is measured as the portion of time that buses spend serving passengers (revenue hours) compared to the total time that buses are out of the bus yard (vehicle hours).

Vehicle hours include: revenue hours, time between ends of lines and the garages (deadhead hours), and schedule recovery/Operator break times during the day (layover hours). Productivity enhancements balance layover hours to provide schedule recovery time when and where it is most needed. This increases the overall usefulness of transit service by reallocating service (lines and parts of routes) with low ridership to lines with higher ridership potential. Allocation of service to meet customer demand is important for ensuring adequate frequency and availability of seats.

Cherriots improves internal operations to ensure that buses leave the end of the line on time, that schedules reflect realistic running times, provide balanced layover times, and that service disruptions are addressed quickly. Efforts are also underway to work with Operators and other field personnel to improve on-time performance and operating conditions, and adjust runtimes when appropriate.

4.3 Performance Data

RIDERSHIP	FY 2014	FY 2015	FY 2016	FY 2017
Local	3,256,546	3,304,058	2,953,459	*2,900,817*
Regional	193,768	188,398	162,636	*144,465*
LIFT	159,985	160,327	150,906	*140,875*
Shop and Ride	8,856	7,998	7,851	*9,107*

REVENUE HOURS	FY 2014	FY 2015	FY 2016	FY 2017
Local	150,969	149,455	157,054	*164,298*
Regional	23,187	23,472	23,978	*23,888*
LIFT	63,380	62,849	62,444	*61,380*
Shop and Ride	4,216	4,091	4,103	*4,684*

REVENUE MILES	FY 2014	FY 2015	FY 2016	FY 2017
Local	1,814,263	1,861,951	2,004,511	*2,044,465*
Regional	509,720	506,411	527,127	*263,271*
LIFT	801,604	787,126	775,475	*752,523*
Shop and Ride	46,483	40,492	40,779	*51,085*

4.4 Passenger Load Standards – Fixed-Route

Cherriots service standards list acceptable passenger capacities for different vehicles. These standards encourage ridership by preventing passenger over-crowding and ensuring everyone has a comfortable ride. Alleviating crowding generally requires greater capital and operating resources for more buses and trains, operators, mechanics, supervisory personnel, and equipment.
Crowding is measured as a proxy for rider comfort. To measure how full a bus is, Cherriots monitors its load factor – a measure of how many riders are on the bus compared to the number of available seats. The load factor is expressed in decimal form (e.g., a bus that has 30 seats and 30 riders on the bus would have a load factor of 1.0, while a bus that has 30 seats and 33 riders would have a load factor of 1.1).

Local – 1.3 riders per seat
On local routes, the average load factor should not exceed 1.3 at the route's maximum load point (the place along the route where the bus is most full) over a three-month period.

Regional Express – 1.0 riders per seat
On regional express routes, the average load factor should not exceed 1.0 at the

route's maximum load point (the place along the route where the bus is most full) over a three-month period.

Monitoring Overcrowding
Staff will not be able to use the established methodology to measure overcrowding until Cherriots procures new automatic passenger counters (APCs). In the interim, when a bus is at capacity, transit operators notify dispatch that they have passed up riders waiting for the bus. These occurrences are logged and monitored.

4.5 Factors Influencing Peak Period Ridership – Fixed-Route

Maintained pullouts
When a bus successfully leaves the yard to complete its trip, this is known as a maintained pullout. Sometimes pullouts are missed if there is not an Operator available to drive a bus or if no bus is available. The number of maintained pullouts should be at least 99.5% of all scheduled pullouts.

Mechanical failures
Sometimes buses experience mechanical failures while in service that require a road call. A road call can result in either a bus being repaired out in the field or a bus being towed back to the yard for maintenance. Mechanical failures requiring a road call should occur less than once every 10,000 miles a bus is in operation.

Peak pullouts are projected based on existing service needs and planned service changes. Projecting peak pullouts assists the agency with planning for future bus purchases and fleet retirement. All Cherriots Local service buses are now low-floor vehicles and the majority are equipped with APCs. All buses are now ASA–equipped.

4.6 ADA Paratransit

Cherriots ADA complimentary paratransit service provided demand responsive transportation services to people with disabilities in the Salem-Keizer UGB serving Marion and portions of Polk counties. Cherriots began Cherriots LIFT paratransit service in 1992 to meet American with Disabilities Act (ADA) requirements. At that

time, the booking of trips on ADA/Paratransit was contract centralized call taking, scheduling, and dispatching for the Cherriots LIFT service. Cherriots subsequently eliminated trip denials, implemented next-day service, and is fully ADA compliant.

The Cherriots LIFT transportation service currently operates origin-to-destination service according to service standards that exceed or are equal to the standards established by the ADA.

Persons eligible for Cherriots LIFT transportation service are unable to use Cherriots Local routes due to a disability or disabling health condition. Cherriots LIFT is a shared-ride, public transportation service. Cherriots LIFT also provides transportation for clients sponsored by social service agencies that contract with Cherriots. Customers must be registered in the program before receiving a ride, with the exception of Cherriots LIFT applicants being transported to eligibility assessments. The Cherriots LIFT contractor is assigned a number of rides for individuals who are traveling the Cherriots LIFT Eligibility Office for interview and assessments, as needed. These riders may not be Cherriots LIFT eligible and no fare is charged for these application trips. Approximately 2,300 customers are eligible to access Cherriots LIFT transportation service.

Cherriots LIFT provides approximately 12,400 one-way trips per month. At this time, Cherriots LIFT does not provide trips on Saturday, Sunday, New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. Cherriots LIFT operates during the same days and hours as Cherriots Local routes. Cherriots LIFT provides service between approximately 5:45 a.m. to 9:00 p.m., Monday through Friday. All rides are by advance reservation only and must be requested no later than 5:00 p.m. the day before the trip. Cherriots LIFT service fares are $3.20 per time the bus is boarded. The Cherriots LIFT fleet consists of 45 ADA-accessible vehicles of varying capacities. Vehicles range from MV-1s to 24' cutaways. Typical useful life for these vehicles is five years.

Performance Standards

Cherriots contractor is responsible for providing the performance standards:

- Provide sufficient vehicles and Operators to perform all work as assigned by Cherriots.
- Meet or exceed goal for on-time delivery of service overall.
- Meet or exceed goal for collision per 100,000 miles.

- Maintain on-time pull-out at or above 98%.

- Complete written reports regarding all accidents or incidents involving vehicles or Operators providing service within 24 hours.

- Resume service within 60 minutes after service disruption caused by vehicle breakdowns or employee illness.

In response to the combined pressures of ridership demand, customer demands for service quality improvements and limited funding, Cherriots and consumer groups in the region are working together to improve mobility for persons with disabilities through cost efficient, innovative services, marketing fixed-route as a transportation preference and a variety of fixed-route travel training programs.

5. PLANNED BUS PROCUREMENT

-

Fixed-Route – Vehicle Replacement

Cherriots replaces 35' and 40' fixed-route buses after approximately 15 years, in accordance with our Transit Asset Management State of Good Repair) targets.* The FTA's Useful Life Benchmark standard for fixed-route buses is 12 years or 500K Miles. Because of exceptional preventative maintenance, Cherriots is able to capture additional years of service. Bus replacement is a top priority of Cherriots. Costs of the replacement purchases, as planned, are included in the Capital Plan (Table 5-1).

TABLE 5-1 - CHERRIOTS VEHICLE REPLACEMENT

CHERRIOTS REQUIREMENTS - ACTIVE FLEET

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019	REPLACE BY END FY	CURRENT	2019	2020	2021	2022	2023
101-112	2002	35	12	CNG	Orion 7	17	2017	12	6	0	0	0	0
201-212	2002	40	12	CNG	Orion 7	17	2017	12	6	0	0	0	0
213,214	2004	40	2	CNG	Orion 7	15	2019	2	2	0	0	0	0
115,122	2005	40	8	BD	Gillig	15	2020	8	8	8	0	0	0
215-222	2008	35	10	CNG	Orion 7	11	2023	10	10	10	10	10	10
223-226	2008	40	4	BD	Gillig	11	2023	4	4	4	4	4	4
227,234	2011	40	8	BD	Gillig	8	2026	8	8	8	8	8	8
123-126	2011	35	4	BD	Gillig	8	2026	4	4	4	4	4	4
127-130	2012	35	4	BD	Gillig	7	2027	4	4	4	4	4	4
1801-1806, 1851-1856	2019	35/40	12	CNG	Gillig	0	2034		12	12	12	12	12
TBD	2020	35/40	14	CNG	Gillig	0	2035			14	14	14	14
TBD	2021	35/40	8	CNG	Transit	0	2036				8	8	8
							Fleet Size	**64**	**64**	**64**	**64**	**64**	**64**

CNG - Compressed Natural Gas
BD - Bio-diesel

Cherriots LIFT – Vehicle Replacement

Cherriots replaces our Cutaway-style vehicles at approximately eight (8) years, as well as our current fleet of MV-1 vehicles, in accordance with our Transit Asset Management (State of Good Repair) targets.* Generally, the FTA's Useful Life Benchmark is five (5) years. Because of exceptional preventative maintenance, Cherriots is able to capture additional years of service. Bus replacement is a top priority of Cherriots. Costs of the replacement purchases, as planned, are included in the Capital Plan (Table 5-2).

TABLE 5-2 - CHERRIOTS LIFT VEHICLE REPLACEMENT

CHERRIOTS LIFT VEHICLES

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019	REPLACE END FY	CURRENT	2019	2020	2021	2022	2023
857-861	2007	22	4	GAS	Champion	12	2015	4	0	0	0	0	0
827-831	2008	22	5	GAS	Elkhart	11	2016	5	4	0	0	0	0
V1655	2008	15	1	GAS	Minivan	11	2016	1	1	0	0	0	0
832,833	2009	22	2	GAS	EK Coach	10	2017	2	2	0	0	0	0
834-837	2010	22	4	GAS	Startrans	9	2018	4	4	0	0	0	0
838-854	2011	22	16	GAS	Startrans	8	2019	16	16	15	0	0	0
862-865	2013	22	4	GAS	Arboc	6	2021	4	4	4	4	0	0
1401-1403	2014	15	3	GAS	MV-1	5	2022	3	3	3	3	3	3
1404-1407	2015	22	4	GAS	MV-1	4	2023	4	4	4	4	4	4
TBD	2019	22	5	GAS	Glaval	0	2027		5	5	5	5	5
TBD	2020	22	12	GAS	Cutaway	0	2028			12	12	12	12
TBD	2021	22	15	GAS	Cutaway		2029				15	15	15
TBD	2022	22	4	GAS	Cutaway		2030					4	4
							Fleet Size	**43**	**43**	**43**	**43**	**43**	**43**

Regional – Vehicle Replacement

Cherriots runs several different vehicle types for its Cherriots Regional Service. Category B vehicles are replaced on a 12-year cycle, in accordance with our Transit Asset Management (State of Good Repair) targets.* All Cutaway-style vehicles are replaced on an eight (8) year cycle, as previously detailed in the Cherriots LIFT section. Because of exceptional preventative maintenance, Cherriots is able to capture additional years of service. Bus replacement is a top priority of Cherriots. Costs of the replacement purchases, as planned, are included in the Capital Plan (Table 5-3).

TABLE 5-3 - CHERRIOTS REGIONAL VEHICLE REPLACEMENT

CHERRIOTS REGIONAL REQUIREMENTS - ACTIVE FLEET

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019	REPLACE END FY	CURRENT	2019	2020	2021	2022	2023
353-354	2004	33	2	Diesel	Freightliner	15	2014	2	0	0	0	0	0
355-357	2006	34	3	Diesel	Freightliner	13	2016	3	2	0	0	0	0
304	2009	25	1	GAS	Ford 450	10	2017	1	1	1	1	1	1
305	2010	25	1	GAS	Ford 450	9	2018	1	1	1	1	1	1
358-359	2010	33	3	Diesel	Champion	9	2020	3	3	3	3	3	3
360	2010	33	1	Hybrid	International	9	2020	1	1	1	1	1	1
307	2012	24	1	GAS	Ford 450	7	2020	1	1	1	1	1	1
TBD	2018	35	3	Diesel	Bluebird	1	2028		3	3	3	3	3
TBD	2020	35	2	Diesel	TBD					2	2	2	2
							Fleet Size	**12**	**12**	**12**	**12**	**12**	**12**

Shop and Ride – Vehicle Replacement

Cherriots replaces our Cutaway-style vehicles at approximately eight (8) years, as well as our current fleet of MV-1 vehicles, in accordance with our Transit Asset Management (State of Good Repair) targets.* Generally, the FTA's Useful Life Benchmark is five (5) years. Because of exceptional preventative maintenance, Cherriots is able to capture additional years of service. Bus replacement is a top priority of Cherriots. Costs of the replacement purchases, as planned, are included in the Capital Plan (Table 5-4).

TABLE 5-4 - CHERRIOTS SHOP AND RIDE VEHICLE REPLACEMENT

CHERRIOTS SHOP AND RIDE VEHICLES

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019	REPLACE END FY	CURRENT	2019	2020	2021	2022	2023
503,503	2007	22	2	GAS	Champion	12	2015	2	1	0	0	0	0
504	2010	22	1	GAS	Champion	9	2018	1	1	1	1	1	1
550,551	2010	15	2	GAS	Minivan	9	2018	2	2	2	2	2	2
TBD	2019	22	1	GAS	Eldorado	0	2027		1	1	1	1	1
TBD	2020	22	1	GAS	TBD		2028			1	1	1	1
			7				**Fleet Size**	**5**	**5**	**5**	**5**	**5**	**5**

* See Appendix C for Cherriots Transit Asset Management Targets (State of Good Repair)

APPENDICES

APPENDIX A
Preventative Maintenance (PM) Inspection Reports

Cherriots – Gillig Inspections
A Service

SALEM AREA MASS TRANSIT DISTRICT
Inspection Checklist Items

Inspection Id: GI35
Type: A

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover on drivers seat
01.10	Fire Suppression System Check:
01.11	A. Fire suppression green LED on.
01.12	B. All other LED's off.
01.13	C. Press to test, bell and relay engaged LED on. Push Relay Reset to clear
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Farebox mounting
01.90	Check door operation - speeds and sensitive edges.
02.10	Check wheelchair ramp operation - tie-down straps, seat belts, wheel locks, and fold-up seat.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check bike rack - lube latch, hinges, and check all for proper operation.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Fill windshield washer reservoir
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: A

Item Number	Description
02.92	3-4 - Gauze pads
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.29	Clean water spots on mirrors and drivers window areas.
03.30	Steam clean engine, transmission, radiator, & undercarriage before inspection and road test.
03.32	Steam clean fuel tank
03.34	Open rear fenders & steam clean
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.42	Perform shop test with digital recorder - Route code 9999
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.52	Decel test Park brake _____ % _____ foot from 20 mph.
03.58	Check fire suppression bottle gauge in green area.
03.59	Drain ping air tank, valve at RR corner of bus under bumper
03.60	Check all fluid levels - engine oil, power steering fluid, transmission, coolant.
03.80	Change oil and filters, take sample at operating temperature. Use back up wrench when removing drain plug Torque drain plug 32ft/lbs
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF_____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft lbs or 156 in/lbs.
04.43	RF _____ LF _____ RR _____ LR _____
04.44	Check slack adjusters Clevis and Pins.
04.45	Check rear Brake Chambers vent tubes for cracking.
04.46	Do brake stroke measurement with 90 to 100 PSI Gillig Fronts 2" ,Rear 2" Max.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: A

Item Number	Description
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Stroke length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. - 120 PSI front and rear cold.
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.21	Check steering gear mounting plate for cracks.
05.30	Check wheel seals.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.85	Lube chassis. Lube S- cams & Anchor pins. 1 pump by hand pump only.
05.90	Check and clean DEF vent tube if equipped on DEF tank.
05.91	Change spin on fuel filter
05.92	Check Processor filter fuel level, change if needed.
06.00	Change hydraulic oil filter
06.10	Drain 4 air tanks at front of bus & check for excess moisture.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean or replace driver's heater filter.
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.70	Check air filter minder - change filter if in red area. Date filter when changed.
06.72	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: A

Item Number	Description
06.80	Check condition of alternator belt and power steering pump belt.
06.81	Check AC compressor drive belt (200 lbs +/_ 10 lbs)
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.51	Clear engine codes with lap top.
07.52	Remove hard drive .View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
07.53	Check recorder date and time,make sure it is set to the present time and date.
08.74	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.08	Pressure check cooling system--Should hold 16 lbs.
09.09	Check Wheel chair ramp torque on drive sprocket screws-(130 inch lbs. use blue loctite)
09.10	Road test on return check for leaks and fluid levels.
09.11	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Gillig Inspections
B Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: B

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover on drivers seat
01.10	Fire Suppression System Check:
01.11	A. Fire suppression green LED on.
01.12	B. All other LED's off.
01.13	C. Press to test, bell and relay engaged LED on. Push Relay Reset to clear
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Farebox mounting
01.90	Check door operation - speeds and sensitive edges.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check bike rack - lube latch, hinges, and check all for proper operation.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Fill windshield washer reservoir
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

Cherriots – Gillig Inspections

C Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: C

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover on drivers seat
01.10	Fire Suppression System Check:
01.11	A. Fire suppression green LED on.
01.12	B. All other LED's off.
01.13	C. Press to test, bell and relay engaged LED on. Push Relay Reset to clear
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Farebox mounting
01.90	Check door operation - speeds and sensitive edges.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check bike rack - lube latch, hinges, and check all for proper operation.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Fill windshield washer reservoir
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: C

Item Number	Description
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.25	Clean Heaters and Evaporator coil areas, and change filter only if it is determined filter is plugged.
03.29	Clean water spots on mirrors and drivers window areas.
03.30	Steam clean engine, transmission, radiator, & undercarriage before inspection and road test.
03.32	Steam clean fuel tank area.
03.34	Open rear fenders & steam clean
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.42	Perform shop test with digital recorder - Route code 9999
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.52	Decel test Park brake _____ % _____ foot from 20 mph.
03.53	AC check freon level.
03.58	Check fire suppression bottle gauge in green area
03.59	Drain ping air tank, valve at RR corner of bus under bumper
03.60	Check all fluid levels - engine oil, power steering fluid, transmission, coolant.
03.61	Check and clean DEF vent tube if equipped on DEF tank.
03.62	Change spin on fuel filter.
03.63	Check Processor filter fuel level, change if needed.
03.79	Sample transmission fluid. Do not change.
03.80	Change oil and filters, take sample at operating temperature. Use back up wrench when removing drain plug Torque drain plug 32ft/lbs
03.81	Change hydraulic oil filter
03.82	Change hydraulic fluid
03.84	Change coolant filter CAUTION: Turn coolant line valves back on after filter change.
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: C

Item Number	Description
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF_____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft lbs or 156 in/lbs.
04.43	RF _____ LF _____ RR _____ LR _____
04.44	Check slack adjusters Clevis and Pins.
04.45	Check rear Brake Chambers vent tubes for cracking.
04.46	Do brake stroke measurement with 90 to 100 PSI Gillig Fronts 2" ,Rear 2" Max.
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Stroke length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. - 120 PSI Front and Rear cold.
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.21	Check steering gear mounting plate for cracks.
05.30	Check wheel seals.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.- Lube S- cams & Anchor pins. 1 pump by hand pump only.
05.91	Remove cover - inspect & lube lower steering shaft
06.10	Drain 4 air tanks at front of bus & check for excess moisture.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: C

Item Number	Description
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.41	Lube Zirks on outside mirrors-only one short shot
06.42	Lube entrance & exit door lube points
06.43	Remove 3 access covers on steering column & lube upper steering shaft
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.63	Change starter at 110,00 miles. Last done at _____
06.64	If equipped with AD-9 Cartridge change every 36,000 miles and service purge valve assembly Date_____ Mileage_____
06.65	If equipped with Dual Turbo 2000 spin cartridge change every 72,000 miles and service purge valve assembly.DATE_____ Mileage_____
06.72	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.
06.80	Check condition of alternator belt and power steering pump belt.
06.81	Check AC compressor drive belt (200 lbs +/_ 10 lbs)
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.52	Check to ensure blow-off caps are in place on all 4 fire suppression nozzles.
07.53	Amerex electrical actuator has self life of 12 years and in service life of 6 years. Date in service _____
07.55	Check for exterior body damage, note on photo page.
07.56	Change AC drier if moisture indicator not green.
07.58	Lube AC clutch with one pump of designated grease.
07.59	Lube evaporator motor shaft bearings.
07.60	Check evaporator drains are clear. Check evaporator compartment and clean as needed..
07.61	Check condenser compartment and clean as needed.
07.62	If equipped with change DEF system filter at pump and inline every 200,000 miles Part # 08000113 & 08000190--Mileage_____ Date_____
07.63	Adjust valves.
07.64	Change crankcase breather filter.
07.66	Clear engine codes with lap top.
07.68	Remove hard drive .View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
07.69	Check recorder date and time,make sure it is set to the present time and date.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: C

Item Number	Description
07.70	Check driver seat condition and lube sliders with Lift U chain lube.
07.71	Change driver seat bottom cushion & cover every 16 to 18 month. Date last done:_____01000870
08.10	Clean wheel chair ramp area.
08.11	Check chain tension and condition, dry lube.
08.12	Check platform hold straight out,(2 lb weight)
08.13	Dry lube pivot points and pins.
08.14	Check operation of wheel chair ramp and tie down system.
08.15	Check Wheel chair ramp torque on drive sprocket screws-(130 inch lbs. use blue loctite)
08.30	Check tanks regulators behind driver head for 23 lbs setting (+, -- ,3 lbs)
08.78	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.09	Clean, lube & inspect Coin Validator soleniod
09.11	Clean Bill Validator externally & internally.
09.13	Inspect & clean trim belts & pulleys
09.17	Clean & inspect trim black rubber rollers
09.37	Bill Transport - lube & inspect.
09.38	Pressure check cooling system--Should hold 16 lbs.
10.05	Check toe-in on front tires.
10.06	Road test on return check for leaks and fluid levels.
10.07	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Gillig Inspections

D Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: D

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover on drivers seat
01.10	Fire Suppression System Check:
01.11	A. Fire suppression green LED on.
01.12	B. All other LED's off.
01.13	C. Press to test, bell and relay engaged LED on. Push Relay Reset to clear
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Farebox mounting
01.90	Check door operation - speeds and sensitive edges.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check bike rack - lube latch, hinges, and check all for proper operation.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Fill windshield washer reservoir
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: D

Item Number	Description
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.25	Clean Heaters and Evaporator coil areas, and change filter only if it is determined filter is plugged.
03.31	Clean water spots on mirrors and drivers window areas.
03.32	Steam clean engine, transmission, radiator, & undercarriage before inspection and road test.
03.33	Steam clean fuel tank area.
03.34	Open rear fenders & steam clean
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.42	Perform shop test with digital recorder - Route code 9999
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.52	Decel test Park brake _____ % _____ foot from 20 mph.
03.53	AC check freon level.
03.59	Drain ping air tank, valve at RR corner of bus under bumper
03.60	Check all fluid levels - engine oil, power steering fluid, transmission, coolant.
03.61	Check and clean DEF vent tube if equipped on DEF tank.
03.62	Change spin on fuel filter. (20000032)
03.63	Check processor filter fuel level,change if needed. (20000021)
03.64	Sample & Change transmission fluid and filter, drain convertor.
03.78	Change rear axle gear oil. (FL000008)
03.80	Change oil and filters, take sample at operating temperature. Use back up wrench when removing drain plug Torque drain plug 32ft/lbs (FL20000026)
03.81	Change hydraulic oil filter (20000034)
03.82	Change hydraulic fluid
03.83	Change antifreeze (FL000005)
03.84	Change coolant filter CAUTION: Turn coolant line valves back on after filter change.
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system manifold and turbo for leaks.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35
Type: D

Item Number	Description
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF_____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft lbs or 156 in/lbs.
04.43	RF _____ LF _____ RR _____ LR _____
04.44	Check slack adjusters Clevis and Pins.
04.45	Check rear Brake Chambers vent tubes for cracking.
04.46	Do brake stroke measurement with 90 to 100 PSI Gillig Fronts 2" ,Rear 2" Max.
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Stroke length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. - 120 PSI Front and Rear cold.
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.21	Check steering gear mounting plate for cracks.
05.30	Check wheel seals.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.- Lube S- cams & Anchor pins. 1 pump by hand pump only.
05.91	Remove cover - inspect & lube lower steering shaft
06.10	Drain 4 air tanks at front of bus & check for excess moisture.
06.20	Check ground straps, battery cables, terminals, and starter connections.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: D

Item Number	Description
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.41	Lube Zirks on outside mirrors-only one short shot
06.42	Lube entrance & exit door lube points
06.43	Remove 3 access covers on steering column & lube upper steering shaft
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.63	Change starter at 110,000 miles. Last done at _____ (06001052)
06.64	If equipped with AD-9 Cartridge change every 36,000 miles and service purge valve assembly Date_____ Mileage_____(06000985)
06.65	If equipped with Dual Turbo 2000 spin cartridge change every 72,000 miles and service purge valve assembly.DATE_____ Mileage_____(06001219)
06.70	Change air filter. Mileage & Date last done._____ _____. (20000013--20007--20000038--2011)
06.72	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.
06.80	Check condition of alternator belt and power steering pump belt.
06.81	Check AC compressor drive belt (200 lbs +/_ 10 lbs)
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.51	Check Amerex fire suppression bottle gauge, needle should be in green range.
07.52	Check to ensure blow-off caps are in place on all 4 fire suppression nozzles.
07.53	Amerex electrical actuator has self life of 12 years and in service life of 6 years. Date in service _____
07.55	Check for exterior body damage, note on photo page.
07.56	Change AC drier if moisture indicator not green.
07.58	Lube AC clutch with one pump of designated grease.
07.59	Lube evaporator motor shaft bearings.
07.60	Check evaporator drains are clear. Check evaporator compartment and clean as needed.
07.61	Check condenser compartment and clean as needed.
07.62	If equipped with change DEF system filter at pump and inline every 200,000 miles Part # 08000113 & 08000190--Mileage_____ Date_____
07.63	Adjust valves
07.64	Change crankcase breather filter. (20000033)

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: D

Item Number	Description
07.65	Replace DPF, clean cat, reset with laptop-Mileage_____ Date_____ last done. R08000128-2012--R08000087--2007)
07.66	Clear engine codes with lap top.
07.68	Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
07.69	Check recorder date and time,make sure it is set to the present time and date.
07.70	Check driver seat condition and lube sliders with Lift U Chain lube.
07.71	Change driver seat bottom cushion & cover every 16 to 18 month. Date last done:_____ (01000870)
08.10	Clean wheel chair ramp area.
08.11	Check chain tension and condition, dry lube.
08.12	Check platform hold straight out (2 lb weight)
08.13	Dry lube pivot points and pins.
08.14	Check operation of wheel chair ramp and tie down system.
08.15	Check Wheel chair ramp torque on drive sprocket screws-(130 inch lbs. use blue loctite)
08.20	Inspect & Repack Front Wheel beainingsMileage _____Date_____Last done,(72,000 miles) (05000294)
08.30	Check tanks regulators behind driver head for 23 lbs setting (+, -- ,3 lbs)
08.85	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.09	Clean, lube & inspect Coin Validator soleniod
09.11	Clean Bill Validator externally & internally.
09.13	Inspect & clean trim belts & pulleys
09.17	Clean & inspect trim black rubber rollers
09.27	Clean & lube Cash box locking mechanism coin & bill stripper
09.29	Lube electronic lock drive gear & drive stud
09.37	Bill Transport - lube & inspect.
09.39	Cash Box - clean & lube locking mechanism, clean slides. USE GREASE SPARINGLY ! THANK YOU
09.41	Cash Box - replace battery every 3 years.
09.42	Mark date battery was replaced on cash box.
09.43	Electronic Lock & Locking Bar - lube drive gear & stud.
09.44	Electronic Lock Door Switch - check & adjust if necessary.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: GI35

Type: D

Item Number	Description
09.45	Coin Bypass - clean, lube & inspect.
09.46	Pressure check cooling system--Should hold 16 lbs.
10.05	Check toe-in on front tires.
10.06	Road test on return check for leaks and fluid levels.
10.07	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – LIFT Inspections
A Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: A

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____.
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats..
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear 6MM OK- 5MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold---
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG

Type: A

Item Number	Description
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
05.92	CHECK hoses to rear heaters-they should be soft.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level-
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque.150-165lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & Bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C pivot points & check fasteners.
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for drivers defects (DVI)
07.88	Reset oil change light.-if equipped.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – LIFT Inspections
B Service

SALEM AREA MASS TRANSIT DISTRICT
Inspection Checklist Items

Inspection Id: CLG
Type: B

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.6 MM OK-5 MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold--
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG

Type: B

Item Number	Description
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
05.92	CHECK hoses to rear heaters-they should be soft.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.50	Wheel stud nuts - check for proper torque.150-165 lbs
07.52	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & Bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fastners.
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defects-(DVI)

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: B

Item Number	Description
07.88	Reset oil change light.-if equipped.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – LIFT Inspections
C Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: C

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
03.85	Replace Trans pick up filter- change ATF- Fill with 9qts Mercon LV- ARBOC 7QTS DEXRON VI
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.6MM OK- 5MM or less brakes Due
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold-

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: C

Item Number	Description
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
05.92	CHECK hoses to rear heaters-they should be soft.
06.00	Replace fuel filter-ARBOC & 2010 buses do not have a inline fuel filter.
06.10	Replace air cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.50	Wheel stud nuts - check for proper torque.150-165 lbs
07.52	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & Bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.75	Inspect micro switchs for security & adjustment

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: C

Item Number	Description
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for drivers defects-DVI
07.88	Reset oil change light.-if equipped.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – LIFT Inspections
D Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: D

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
03.85	Replace Trans pick up filter- change ATF- Fill with 9qts Mercon LV- ARBOC 7QTS DEXRON VI
03.90	Change differential fluid -use 75W-90W fluid 5gallon can
03.91	Clean differential breather, check for fluid leaks
04.00	Change Anti-Freeze
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: D

Item Number	Description
04.30	Brake Linings - check wear for wear.6MM OK- 5 MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold-
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
05.92	CHECK hoses to rear heaters-they should be soft.
06.00	Replace fuel filter-2010 buses do not have a inline fuel filter.
06.10	Replace Air cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.42	Repack front wheel bearings-ARBOC FT BEARINGS ARE SEALED UNIT-NOT SERVICABLE
07.43	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.44	Replace PCV valve-NO PCV ON ARBOC
07.45	Replace Spark Plugs-ARBOC GAP .043-11 FT LBS. TORQUE
07.50	Wheel stud nuts - check for proper torque.150-165lbs
07.52	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & Bus number.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: CLG
Type: D

Item Number	Description
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C LIFToperation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.73	Check fluid level-change if fluid looks contaminated.
07.75	Inspect micro switchs for security & adjustment
07.80	Check outer barrier operation.
07.81	Check inner barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.85	CHECK TOE IN-1/8 TO 5/32 ALL VEHICLES
07.87	Check file for drivers defects-DVI
07.88	Reset oil change light.-if equipped.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – Orion VII Inspections
A Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0740
Type: A

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover on drivers seat
01.10	Gas Detector Fire Suppression Check:
01.11	A. Fire suppression green LED on.
01.12	B. Gas detection green LED on.
01.13	C. All other LED's off.
01.14	D. Press to test - all LED's for significant, trace and sensor fault on.
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and lock.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Fare box mounting
01.90	Check door operation - speeds and sensitive edges.
02.10	Check wheelchair ramp operation, for leaks, and fluid level.
02.11	Check tie-down straps, seat belts, wheel locks, and fold-up seat.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0740
Type: A

Item Number	Description
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.22	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
03.23	Fill windshield washer reservoir
03.28	Clean water spots on mirrors and drivers window areas.
03.29	Before steam clean engine cover marine pump with something to keep it dry.
03.31	Steam clean engine, transmission, radiator,& undercarriage before inspection and road test.
03.32	Perform shop test with digital recorder - Route code 9999
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____ 5th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.52	Decel test Park brake _____ % _____ foot from 20 mph.
03.60	Check all fluid levels - engine oil, power steering fluid, transmission, coolant.
03.62	HYD TANK-FLUID SHOULD ONLY COVER LOWER SIGHT GLASS
03.70	Check fuel fill door safety switch - Engine should die when door is opened.
03.80	Change oil and filters, take sample at operating temperature. Locktite 592 Sealer on threads. Torque drain plug 35-40 ft/lbs
03.97	Clean differential breather and check for fluid leaks & fluid level.
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays& leaks
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF_____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft lbs or 156 in/lbs.
04.43	RF _____ LF _____ RR _____ LR _____
04.44	Check slack adjusters Clevis and Pins.
04.45	Check rear Brake Chambers vent tubes for cracking.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0740
Type: A

Item Number	Description
04.46	Do brake stroke measurement with 90 to 100 PSI Orion 7 Fronts 2",Rears 2 3/8" Max.
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Stroke length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. Orion VII - 115 front -120 rear psi cold.
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals. Verify correct gear oil level on front hubs.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.- Lube S- cams & Anchor pins. 1 pump by hand pump only.
06.10	Drain air tanks under bus & check for excess moisture.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.60	Change crankcase breather filter.
06.70	Check air filter minder - change filter if in red area. Date filter when changed.
06.71	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.
06.80	Check condition of alternator belt and power steering pump belt.
06.81	Check AC compressor drive belt (200 lbs +/_ 10 lbs)
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Drain air tanks above engine and check for moisture.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0740
Type: A

Item Number	Description
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.41	Check bike rack - lube latch, hinges, and check all for proper operation.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.60	Check Amerex fire suppression bottle gauge - should be in the green zone.
08.71	Remove hard drive. View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
08.72	Check recorder date and time ,make sure it is set the same as the present time and date.
08.73	Clear engine codes with lap top. Check and set Date and time on ECM Detroits only.
08.74	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.08	Pressure check cooling system.-Should hold 10 lbs.
09.11	Road test on return check for leaks and fluid levels.
09.12	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Orion VII Inspections
B Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: B

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, befores starting service.
01.05	Install protective seat cover on drivers seat
01.10	Gas Detector Fire Suppression Check:
01.11	A. Fire suppression green LED on.
01.12	B. Gas detection green LED on.
01.13	C. All other LED's off.
01.14	D. Press to test - all LED's for significant, trace and sensor fault on.
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and lock.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.81	Farebox mounting
01.90	Check door operation - speeds and sensitive edges.
02.10	Check wheelchair ramp operation,for leaks,and fluid level.
02.11	Check tie-down straps, seat belts, wheel locks, and fold-up seat.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.89	Check paper towel and puke bag
02.90	Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: B

Item Number	Description
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.21	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
03.22	Fill windshield washer reservoir
03.25	Clean water spots on mirrors and drivers window areas.
03.29	Before steam cleaning engine cover marine pump with something to keep it dry.
03.30	Steam clean engine, transmission, radiator,& undercarriage, before inspection and road test.
03.31	Perform shop test with digital recorder - Route code 9999
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____ 5th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.52	Decel test Park brake _____ % _____ foot from 20 mph.
03.60	Check all fluid levels - engine oil, power steering fluid, transmission, coolant.
03.62	HYD TANK-FLUID SHOULD ONLY COVER LOWER SIGHT GLASS
03.70	Check fuel fill door safety switch - Engine should die when door is opened.
03.75	Sample Trans fluid at operating temperature if pan is painted red.
03.80	Change oil and filters, take sample at operating temperature. Locktite 592 Sealer on threads. Torque drain plug 35-40 ft/lbs
03.97	Clean differential breather and check for fluid leaks & fluid level.
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays& leaks
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF_____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft lbs or 156 in/lbs.
04.43	RF _____ LF _____ RR _____ LR _____
04.44	Check slack adjuster Clevis and pin.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: B

Item Number	Description
04.45	Check rear Brakes Chamber vent tubes for cracking.
04.46	Do brake stroke measurment with 90 to 100PSI Orion 7 fronts 2" ,rears 2 3/8. Max.
04.47	Applied RF_____LF_____RR_____LR_____
04.48	Brakes released RF_____LF_____RR_____LR_____
04.49	Stroke Length RF_____LF_____RR_____LR_____
04.50	Record tire air pressure. Orion VII - 115 front -120 rear psi cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals. Verify correct gear oil level on front hubs.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis. --Lube S-cams & Anchor pins -1 pump with hand grease gun only.
06.10	Drain air tanks under bus & check for excess moisture.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 CCA Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.60	Change crankcase breather filter.
06.70	Check air filter minder - change filter if in red area. Date filter when changed.
06.71	Remove belt covers and check belts,Idler pulleys,and tensioner for condition.
06.80	Check condition of alternator belt and power steering pump belt.
06.81	Check AC compressor drive belt (200 lbs +/_ 10 lbs)
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: B

Item Number	Description
07.10	Drain air tanks above engine and check for moisture.
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.41	Check bike rack - lube latch, hinges, and check all for proper operation.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.60	Check Amerex fire suppression bottle gauge - should be in the green zone.
07.61	Check driver seat condition and lube sliders with Lift U chain lube.
08.71	Remove hard drive. View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
08.72	Check recorder date and time. Make sure it is set the same as the present time and date.
08.73	Clear engine codes with lap top. Check and set Date and time on ECM Detroits only.
08.74	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.09	Clean, lube & inspect Coin Validator soleniod
09.11	Clean Bill Validator externally & internally.
09.13	Inspect & clean trim belts & pulleys
09.14	Clean & inspect trim black rubber rollers
09.17	Pressure check cooling system.-Should hold 10 lbs.
09.18	Road test on return check for leaks and fluid levels.
09.19	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Orion VII Inspections
C Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: C

Item Number	Description
cart	Check bike rack - lube latch, hinges, and check all for proper operation.
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover.
01.10	Gas Detector Fire Suppresion Check:
01.11	A. Fire suppression green LED on.
01.12	B. Gas detection green LED on.
01.13	C. All other LED's off.
01.14	D. Press to test - all LED's for significant, trace and sensor fault on.
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and guages.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and lock.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.90	Check door operation - speeds and sensitive edges.
02.10	Check wheelchair ramp operation,for leaks,and fluid level.
02.11	Check tie-down straps, seat belts, wheel locks, and fold-up seat.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.35	Farebox mounting
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.90	Check paper towel & puke bag. Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: C

Item Number	Description
02.93	3-4 - Disinfectant towelettes
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.21	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry. Fill reservoir.
03.22	Fill windshield washer tank.
03.27	Remove screen & steam clean radiator
03.28	Clean water spots on mirrors and drivers window areas.
03.29	Before steam cleaning engine cover marine pump with something to keep it dry.
03.30	Steam clean engine, transmission, radiator,& undercarriage before inspection and road test.
03.31	Clean Heaters And Evaporator coil area, and change filter only if it is determined filter is plugged.
03.32	Perform shop test with digital recorder-Route Code 9999
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st _____ mph 2nd _____ mph 3rd _____ mph
03.42	4th _____ mph 5th _____ mph
03.50	Brake decel test.
03.51	Service brakes _____ % _____ foot from 20 mph
03.52	Park brake _____ % _____ foot from 20 mph.
03.53	AC check freon level.
03.60	Check power steering & coolant fluid levels.
03.61	HYD TANK-FLUID SHOULD ONLY COVER LOWER SIGHT GLASS
03.62	Sample trans fluid at operating tempature if pan is painted red.
03.70	Check fuel fill door safety switch - Engine should die when door is opened.
03.72	Shut off fuel at manual shut off valve. Check 500 lbs low fuel warning light & buzzer. .
03.73	Change fuel filters. 20000027
03.80	Perform starter amp. Draw: _____ (max. 600 amps).
03.90	Change oil and filters, take samples of operating temperature.
03.97	Clean differential breather, check for fluid leaks
04.00	Change coolant filter : Caution : Turn shut valves back on.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: C

Item Number	Description
04.10	Check fuel, oil, water, air, transmission, and power steering lines for rubbing, kinks, fraying, and leaks under bus.
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF _____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft/lbs or 156 in/lbs
04.43	RF_____ LF_____ RR_____ LR_____
04.44	Check slack adjusters Clevis and Pin
04.45	Check rear Brake Chambers vent tubes for cracking.
04.46	Due brake stroke measurement with 90 to 100 PSI Orion 7 fronts 2" rears 2 3/8" Max.
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Stroke length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. Orion VII - 115 front -120 rear psi cold
04.51	RF _____ LF_____ RRI _____ RRO _____ LRI _____ LRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	RF _____ LF_____ RRO _____ RRI _____ LRO _____ LRI _____
04.90	Undercarriage inspection.
05.00	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals. Verify correct gear oil level on front hubs.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis. -Lube S-cams & Anchor pins 1 pump by hand grease gun only.
05.91	Drain air tanks under bus & check for excess moisture.
05.95	Lube wheelchair ramp mechanism
06.20	Check ground straps, battery cables, terminals, and starter connections.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: C

Item Number	Description
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.42	Lube rollers & zirks on enterance & exit doors
06.43	Lube Zirks on outside mirrors-only one short shot
06.44	Check and Lube grease zirks on upper steering column shaft inside bus.
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.60	Change crankcase breather filter.
06.72	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.
06.80	Check condition of alternator belt and power steering pump belt.
06.90	Check fuel, oil, coolant, air, transmission, and power steering lines for rubbing, kinks, fraying, and leaks in engine compartment.
07.10	Drain air tanks above engine and check for moisture.
07.20	Check A/C compressor drive belt (200 lbs. +/- 10 lbs.)
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.60	Check Amerex fire suppression bottle gauge - should be in the green zone.
07.70	Check to ensure blow-off caps are in place on all 4 fire suppression nozzles.
07.80	Amerex Electrical Actuator has a shelf life of 12 years and a service life of 6 years. Date in service. _____
07.82	Check for exterior body damage, note on photo page.
08.20	Change hydraulic filter.
08.21	Clean foam filter inside hydraulic tank fill cap-take apart cap.
08.30	Change hydraulic fluid every 108,000 miles. Fluid last changed: _____
08.60	Change AC drier if moisture indicator not green.
08.62	Lube AC clutch with one pump of designated grease.
08.63	Lube evaporator motor shaft bearings.
08.64	Check evaporator compartment drains are clear. Clean compartment as needed
08.66	Check driver seat condition and lube sliders with Lift U chain lube.
08.67	Change driver seat bottom cushion & cover every 16 to 18 month. Date last done:_____01000870__
08.71	Remove hard drive. View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
08.72	Check recorder date and time,make sure it is set the same as the present time and date.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735

Type: C

Item Number	Description
08.73	Clear engine code with lap top,Check and set Date and time on ECM Detroits only.
08.74	Clean air line filter that goes into pressure protection valve,(located above LR supply tank,next to fire extingquisher for fire system.)
08.75	Adjust valves.
08.76	Replace spark plugs in Detroit engines every 72,000 miles. Last done _____ miles.
08.77	Change starter at 120,000 miles. Last done: _____ miles.
08.78	Change AD- 9 Cartridge every 36,000 miles and service purge valve assembly Date_____ Mileage_____
08.88	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.09	Clean, Lube & Inspect Coin Validator soleniod
09.11	Clean Bill Validator externally & internally.
09.13	Inspect & clean trim belts & pulleys
09.15	Clean & inspect trim yellow feed rollers
09.17	Clean & inspect trim black rubber rollers
09.23	Clean & inspect trim solenoids, gears & edge guides
09.37	Bill Transport - lube & inspect.
09.38	Pressure check cooling system.-Should hold 10 lbs.
10.05	Check toe-in on front tires.
10.06	Check condenser, clean as needed
10.07	Perform CNG tank inspection and certification.
10.08	Road test on return check for leaks and fluid levels.
10.09	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Orion VII Inspections
D Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: D

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.01	Probe Fare box, before starting service.
01.05	Install protective seat cover.
01.10	Gas Detector Fire Suppresion Check:
01.11	A. Fire suppression green LED on.
01.12	B. Gas detection green LED on.
01.13	C. All other LED's off.
01.14	D. Press to test - all LED's for significant, trace and sensor fault on.
01.20	Check brake and accelerator pedal action and feel, pump down air system.
01.21	Check throttle pedal spring on electronic control pedal.
01.25	Check seat belt cutter is properly mounted
01.30	Check warning buzzer, horn, tell tale lamps, driver's controls, and guages.
01.40	Check parking brake operation holds without movement. Idle to full throttle -- max 2 sec.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and lock.
01.70	Check kneel operation and adjustments.
01.80	Check turn signals.
01.90	Check door operation - speeds and sensitive edges.
02.10	Check wheelchair ramp operation,for leaks,and fluid level.
02.11	Check tie-down straps, seat belts, wheel locks, and fold-up seat.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.31	Check vandal guard film for damage and scratches, and note if replacement is needed.
02.35	Farebox mounting
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.80	Check for intact red tie on emergency triangle box - repl as needed.
02.81	Check expiration date on fire extinguisher - replace if needed.
02.90	Check paper towel & puke bag. Check driver's first aid box for an intact seal. If seal is broken, check contents and restock items as necessary (see list below)
02.91	10 ea - Band-aids (+/- 1 or 2)
02.92	3-4 - Gauze pads
02.93	3-4 - Disinfectant towelettes

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: D

Item Number	Description
02.94	2-3 - Pair Latex Gloves
02.95	1 ea - CPR Microshield
02.96	1 ea - Red Biohazard Bag
03.00	Check destination signs - operation, lights, glass.
03.10	Allow air compressor to build to 125 lbs., cut off pressure, shut off engine.
03.20	Loss of air pressure in one minute - brake. Record loss _____
03.21	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry. Fill reservoir.
03.22	Fill windshield washer tank.
03.24	Clean Heaters and Evaporator coil area -and change filter only if it is determined filter is plugged.
03.25	Remove screen from radiator before steam cleaning.
03.28	Clean water spots on mirrors and drivers window areas.
03.29	Before steam cleaning engine cover marine pump with something to keep it dry.
03.31	Steam clean engine, transmission, radiator,& undercarriage before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st _____ mph 2nd _____ mph 3rd _____ mph
03.42	4th _____ mph 5th _____ mph
03.43	Perform shop test with digital recorder-Route Code 9999
03.50	Brake decel test.
03.51	Service brakes _____ % _____ foot from 20 mph
03.52	Park brake _____ % _____ foot from 20 mph.
03.53	Sample trans fluid at operating tempature if pan is painted red.engine running - drain out one pint before sample
03.54	AC check freon level.
03.60	Check power steering & coolant fluid levels.
03.70	Check fuel fill door safety switch - Engine should die when door is opened.
03.72	Shut off fuel at manual shut off valve. Check 500 lbs low fuel warning light & buzzer. .
03.73	Change fuel filters.(20000001)
03.80	Perform starter amp. Draw: _____ (max. 600 amps).
03.81	Change trans fluid & filters and refill with Petro Canada fluid-paint pan & dip stick handle red.
03.82	Torque drain pan plug 18-24 ft/lbs. Filter cover bolts 25 ft/lbs.
03.90	Change oil and filters, take samples of operating temperature.(20000009)
03.96	Change rear axle gear oil. (FL000008)
03.97	Clean differential breather, check for fluid leaks

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: D

Item Number	Description
03.99	Change Antifreeze.(FL000005)
04.00	Change coolant filter : Caution : Turn shut valves back on.(20000029)
04.10	Check fuel, oil, water, air, transmission, and power steering lines for rubbing, kinks, fraying, and leaks under bus.
04.20	Check exhaust system manifold and turbo for leaks.
04.30	Brake Linings - check wear line.
04.31	RF _____ LF _____ RR _____ LR _____
04.40	Check roller to cam positions.
04.41	RF _____ LF_____ RR _____ LR _____
04.42	Check Slack adjuster adjusting bolt with a torque wrench @ 13 ft/lbs or 156 in/lbs
04.43	RF_____ LF_____ RR_____ LR_____
04.44	Check slack adjuster Clevis Pins.
04.45	Check Rear Brakes Chambers vent tubes for cracking.
04.46	Do brake stroke measurement with 90 to 100 PSI Orion 7 Fronts 2", Rears 2 3/8" Max.
04.47	Applied RF_____LF_____RR_____LR_____.
04.48	Brakes released RF_____LF_____RR_____LR_____.
04.49	Sroke Length RF_____LF_____RR_____LR_____.
04.50	Record tire air pressure. Orion VII - 115 front -120 rear psi cold.
04.51	RF _____ LF_____ RRI _____ RRO _____ LRI _____ LRO _____
04.60	Record tire tread depth - Minimum of 4/32" on Fronts & Rears
04.61	RF _____ LF_____ RRO _____ RRI _____ LRO _____ LRI _____
04.90	Undercarriage inspection.
05.00	Tie rods and ends.
05.10	Check king pins and front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals. Verify correct gear oil level on front hubs.
05.40	Check air bags.
05.50	Check lateral & radius rod bushings.
05.60	Check drive line and u-joints.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.- Lube S- cams & Anchor pins. 1 pump by hand pump only.
05.91	Drain air tanks under bus & check for excess moisture.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: D

Item Number	Description
05.95	Lube wheelchair ramp mechanism
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery Tops. Load test @ DECA 700 CCA & 950 Interstate batterys. .
06.31	1) _____ 2) _____ 3) _____ 4) _____
06.40	Clean driver's heater filter.
06.42	Lube rollers & zirks on enterance & exit doors
06.43	Lube Zirks on outside mirrors-only one short shot
06.44	Check and Lube grease zirks on upper steering column shaft inside bus.
06.50	Tighten intake clamps, check air compressor inlet hose condition.
06.60	Change crankcase breather filter. (20000012)
06.71	Change air filter at 72,000 miles. Mileage & Date last done _____(20000022)
06.72	Remove belt covers ,check belts,Idlers pulleys bearings & tensioner.
06.80	Check condition of alternator belt and power steering pump belt.
06.90	Check fuel, oil, coolant, air, transmission, and power steering lines for rubbing, kinks, fraying, and leaks in engine compartment.
07.10	Drain air tanks above engine and check for moisture.
07.20	Check A/C compressor drive belt (200 lbs. +/- 10 lbs.)
07.30	Check exhaust system and muffler.
07.40	Check all side compartment door latches, clean and lube.
07.41	Check bike rack - lube latch, hinges, and check all for proper operation.
07.50	Wheel stud nuts - check for proper torque (450 to 500 ft/lbs).
07.60	Check Amerex fire suppression bottle gauge - should be in the green zone.
07.70	Check to ensure blow-off caps are in place on all 4 fire suppression nozzles.
07.80	Amerex Electrical Actuator has a shelf life of 12 years and a service life of 6 years. Date in service. _____
07.82	Check for exterior body damage, note on photo page.
08.20	Change hydraulic filter. (20000023)
08.21	Clean foam filter inside Hydraulic tank fill cap-take apart cap.
08.30	Change hydraulic fluid every 108,000 miles. Fluid last changed: _____
08.31	HYD TANK-FLUID SHOULD ONLY COVER LOWER SIGHT GLASS
08.60	Change AC drier if moisture indicator not green.
08.62	Lube AC clutch with one pump of designated grease.
08.63	Lube evaporator motor shaft bearings.
08.64	Check evaporator compartment drains are clear. Clean compartment as needed

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735

Type: D

Item Number	Description
08.66	Check driver seat condition and lube sliders with Lift U chain lube.
08.67	Change driver seat bottom cushion & cover every 16 to 18 month. Date last done:_____(01000870)
08.71	Remove hard drive. View hard drive for about 2 min, to make sure all cameras and sound are working normal. Reinstall hard drive and check to see if system reboots and says: System OK.
08.72	Check recorder date and time,make sure it is set the same as the present time and date.
08.73	Clear engine code with lap top,Check and set Date and Time on ECM Detroits only.
08.74	Change starter at 120,000 miles. Last done: _____ miles.(R06000038)
08.75	Change AD-9 Cartridge every 36,000 miles and service purge valve assembly Date_____ Mileage_____(06000985)
08.76	Clean air line air filter that goes into pressure protection valve.(Located aboce LR supply tank,next to fire extinquisher bottle for fire system.)
08.77	Adjust valves.
08.78	Replace spark plugs in Detroit engines every 72,000 miles. Last done _____ miles.(06001183)
08.80	Inspect & Repack Front Wheel Bearings. Mileage_____Date_____last done.(72,000 miles)(05000294)
08.85	Check DVI books-1 book they are using, 1 last 30 days used, 1 new book, all others remove.
08.98	Check & Fill day pass in Fare box. DO NOT OVER FILL
09.00	Clean swipe card & trim with cleaning card.
09.05	Clean coin insert slot.
09.07	Clean Coin Validator externally & internally.
09.09	Clean, lube & inspect Coin Validator soleniod
09.11	Clean Bill Validator externally & internally.
09.13	Inspect & clean trim belts & pulleys
09.15	Clean & inspect trim yellow feed rollers
09.17	Clean & inspect trim black rubber rollers
09.27	Clean & lube Cash box locking mechanism coin & bill stripper
09.29	Lube electronic lock drive gear & drive stud
09.37	Bill Transport -clean, inspect & Lube.
09.39	Cash Box - clean & lube locking mechanism, clean slides. USE GREASE SPARINGLY ! THANK YOU
09.41	Cash Box - every 3 years, replace battery.
09.42	Mark date battery was replaced on cash box.
09.43	Electronic Lock & Locking Bar - lube drive gear & stud.
09.44	Electronic Lock Door Switch - check & adjust if necessary.
09.45	Coin Bypass - clean, lube & inspect.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: 0735
Type: D

Item Number	Description
09.46	Pressure check cooling system.-Should hold 10 lbs.
10.06	Check steering stops, adjust if needed. (1/8 inch gap)
10.07	Check toe-in on front tires.
10.08	Check condenser, clean as needed
10.09	Perform CNG tank inspection and certification.
10.10	Road test on return check for leaks and fluid levels.
10.11	Check interior cleanliness to make sure it is presentable for the public before parking.

Cherriots – Regional Inspections
A Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: A

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Brake and accelerator pedal action and feel, pump down air system.
01.22	Check throttle pedal spring on electronic control pedal.
01.30	Warning buzzer, horn, tell tale lamps, drivers' controls, and gauges
01.32	Check route sign operation if equipped.
01.40	Parking Brake operation - holds without movement, idle to 1200 rpm max
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
02.85	Bike rack - lube latch, hinges, and check all for proper operation
02.87	* Allow air compressor to build to 130lbs., cut off pressure, shut off engine.
02.88	Loss of air pressure in one minute, brake and accelerator applied. Record Loss _____
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.31	REMOVE SIDE DOOR & CLEAN RADAITOR AS IF TOMORROW WILL BE 100 DEGREES
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.80	Sample Engine Oil at operating Temperature
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: A

Item Number	Description
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. 100 PSI 22.5 TIRE-110 PSI 19.5 TIRE
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32" REARS
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.63	Check brake stroke measurement with 90 to 100 PSI --- Fronts 1 3/4" Rears 2 ".
04.64	Applied RF _____LF _____RR _____LR _____.
04.65	Released RF _____LF _____RR _____LR _____.
04.66	Stroke Length RF_____LF _____ RR _____LR _____.
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.82	Soap Air Bags and Check For Leaks
04.84	
04.90	Tie rods and ends.
05.10	Check KING PINS & Front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.05	Check air cleaner filer minder & reset.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level-
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.40	Check all side compartment door latches, clean and lube.
07.49	Check front wheel oil level

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34

Type: A

Item Number	Description
07.50	Wheel stud nuts - check for proper torque.
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C lift operation
07.70	Lube W/C Piviot points & check fastners.
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defect sheets.
07.90	Take for a SHORT test drive & check for leaks and fluid level after defects are completed.

Cherriots – Regional Inspections
B Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: B

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Brake and accelerator pedal action and feel, pump down air system.
01.22	Check throttle pedal spring on electronic control pedal.
01.30	Warning buzzer, horn, tell tale lamps, drivers' controls, and gauges
01.32	Check route sign operation if equipped.
01.40	Parking Brake operation - holds without movement, idle to 1200 rpm max
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
02.87	* Allow air compressor to build to 130lbs., cut off pressure, shut off engine.
02.88	Loss of air pressure in one minute, brake and accelerator applied. Record Loss _____
020.8	Bike rack - lube latch, hinges, and check all for proper operation
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.31	REMOVE SIDE DOOR & CLEAN RADAITOR AS IF TOMORROW WILL BE 100 DEGREES
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.80	Change oil and filter, take sample at operating temperature. Torque plug,use ECO Oil 15/40 oil
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: B

Item Number	Description
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts psi- Rears psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32" Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.63	Check brake stroke measurement with 90 to 100 PSI --- Fronts 1 3/4" Rears 2 ".
04.64	Applied RF _____LF _____RR _____LR _____.
04.65	Released RF _____LF _____RR _____LR _____.
04.66	Stroke Length RF_____LF _____ RR _____LR _____.
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.82	Soap Air Bags and Check For Leaks
04.90	Tie rods and ends.
05.10	Check King Pins -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filters.
06.05	Check air cleaner filer minder & reset.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.01	Replace crank case breather filter-BUS 358 & 359 ONLY
07.10	Check coolant pretection level (-25 to -40); check Nalcool with test strip (minimum = 10)

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: B

Item Number	Description
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.49	Check front wheel oil level
07.50	Wheel stud nuts - check for proper torque. Lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fasteners
07.80	Check inner barrier operation.
07.81	Check outer barrier operation
07.82	Check Thershold warning plate.
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defect sheets.
07.90	Take for a SHORT test drive & check for leaks and fluid levels. After PM defects are completed.

Cherriots – Regional Inspections
C Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: C

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Brake and accelerator pedal action and feel, pump down air system.
01.22	Check throttle pedal spring on electronic control pedal.
01.30	Warning buzzer, horn, tell tale lamps, drivers' controls, and gauges
01.32	Check route sign operation if equipped.
01.40	Parking Brake operation - holds without movement, idle to 1200 rpm max
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
02.85	Bike rack - lube latch, hinges, and check all for proper operation
02.87	* Allow air compressor to build to 130lbs., cut off pressure, shut off engine.
02.88	Loss of air pressure in one minute, brake and accelerator applied. Record Loss _____
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.31	REMOVE SIDE DOOR & CLEAN RADAITOR AS IF TOMORROW WILL BE 100 DEGREES
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.80	Change oil and filter, take sample at operating temperature.Torque plug,use ECO Oil 15/40 oil.
03.85	Replace Trans Filters & ATF-use Mercon V- in the over head reels

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: C

Item Number	Description
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts psi- Rears psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.63	Check brake stroke measurement with 90 to 100 PSI --- Fronts 1 3/4" Rears 2 ".
04.64	Applied RF _____LF _____RR _____LR _____.
04.65	Released RF _____LF _____RR _____LR _____.
04.66	Stroke Length RF_____LF _____ RR _____LR _____.
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.82	Soap Air Bags and Check For Leaks
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filters.
06.05	Check air cleaner filer minder & reset.
06.10	Replace Air Cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: C

Item Number	Description
07.00	Adjust Valves
07.01	Replace crank case breather filter-BUS 358 & 359 ONLY
07.10	Check coolant pretection level (-25 to -40); check Nalcool with test strip (minimum = 10)
07.21	Replace Hyd filter
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.49	Check front wheel oil level-check bearings if oil is discolored
07.50	Wheel stud nuts - check for proper torque. Lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.75	Inspect micro switchs for security & adjustment
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defect sheets.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – Regional Inspections
D Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: D

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Brake and accelerator pedal action and feel, pump down air system.
01.22	Check throttle pedal spring on electronic control pedal.
01.30	Warning buzzer, horn, tell tale lamps, drivers' controls, and gauges
01.32	Check route sign operation if equipped.
01.40	Parking Brake operation - holds without movement, idle to 1200 rpm max
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
02.85	Bike rack - lube latch, hinges, and check all for proper operation
02.87	* Allow air compressor to build to 130lbs., cut off pressure, shut off engine.
02.88	Loss of air pressure in one minute, brake and accelerator applied. Record Loss _____
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.31	REMOVE SIDE DOOR & CLEAN RADAITOR AS IF TOMORROW WILL BE 100 DEGREES
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.80	Change oil and filter, take sample at operating temperature. Torque plug, Use ECO Oil 15/40 oil
03.85	Replace Trans Filters & ATF-use Mercon V- in the over head reels

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: D

Item Number	Description
03.90	Change differential fluid -use ? Fluid
03.91	Clean differential breather, check for fluid leaks
04.00	Change Anti-Freeze
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts psi- Rears psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.63	Check brake stroke measurement with 90 to 100 PSI --- Fronts 1 3/4" Rears 2 ".
04.64	Applied RF _____LF _____RR _____LR _____.
04.65	Released RF _____LF _____RR _____LR _____.
04.66	Stroke Length RF_____LF _____ RR _____LR _____.
04.80	Undercarriage inspection.
04.82	Soap Air Bags and Check For Leaks
04.90	Tie rods and ends.
05.10	Check King pins & check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filters.
06.05	Check air cleaner filer minder & reset.
06.10	Replace Air Cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: KR34
Type: D

Item Number	Description
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.00	Adjust valves
07.01	Replace crank case breather filter-BUS 358 & 359 ONLY
07.10	Check coolant pretection level (-25 to -40); check Nalcool with test strip (minimum = 10)
07.12	Replace DPF filter-BUS 358 & 359 ONLY
07.20	Change Hyd oil
07.21	Replace Hyd filter
07.40	Check all side compartment door latches, clean and lube.
07.42	Drain front hubs & refill with 85/140 oil-check bearings if oil is discolored
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.50	Wheel stud nuts - check for proper torque. Lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.73	Check fluid level-change if fluid looks contaminated
07.75	Inspect micro switchs for security & adjustment
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.85	Check Toe In
07.87	Check file for driver defect sheets.
07.90	Take for a SHORT test drive & check for leaks and fluid levels. After PM defects are completed.

Cherriots – Shop and Ride Inspections
A Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: A

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.6MM OK-5MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: A

Item Number	Description
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32" REARS
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level-
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.40	Check all side compartment door latches, clean and lube.
07.50	Wheel stud nuts - check for proper torque.150-165lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C lift operation
07.70	Lube W/C Piviot points & check fastners.
07.80	Check inner barrier operation.
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defect sheets.
07.88	Reset oil change light if equipped with.
07.90	Take for a SHORT test drive & check for leaks and fluid level after defects are completed.

Cherriots – Shop and Ride Inspections
B Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: B

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts - Fan - A/C - Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.6MM OK-5MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: B

Item Number	Description
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32" Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filter --DIESEL ONLY
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.50	Wheel stud nuts - check for proper torque. 150-165lbs
07.51	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fasteners
07.80	Check inner barrier operation.
07.81	Check outer barrier operation
07.82	Check Thershold warning plate.
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for driver defect sheets.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: B

Item Number	Description
07.88	Reset oil change light if equipped with.
07.90	Take for a SHORT test drive & check for leaks and fluid levels. After PM defects are completed.

Cherriots – Shop and Ride Inspections
C Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: C

Item Number	Description
01.00	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
03.85	Replace Trans pick up filter- change ATF- Fill with 9qts Mercon LV
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.
04.30	Brake Linings - check wear for wear.6MM OK-5MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: C

Item Number	Description
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.70	Clean differential breather, check for fluid leaks
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filter-DIESEL & GASOLINE
06.10	Replace air cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.45	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.50	Rotate rear Tires from side to side if needed. Fronts if side walls are bad.
07.52	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number.
07.53	Lube W/C & rear exit door key locks with dry lube
07.60	Check W/C operation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.75	Inspect micro switchs for security & adjustment
07.80	Check inner barrier operation.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: C

Item Number	Description
07.81	Check outer barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.87	Check file for drivers defects
07.88	Reset oil change light if equipped with.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

Cherriots – Shop and Ride Inspections
D Service

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: D

Item Number	Description
-	Date _____ Mileage _____ WO# _____IND#_____
01.05	Install protective seat cover on drivers seat
01.20	Check brake and accelerator pedal action and feel,
01.30	Check horn, tell tale lamps, driver's controls, and gauges.
01.40	Check parking brake operation -- holds on a slope.
01.50	Check brake and accelerator interlock.
01.60	Check tilt steering wheel adjustment and telescope.
01.80	Check turn signals.
01.90	Check door operation - sensitive edges.
02.10	Check wheelchair tie-down straps, seat belts, and fold-up seats.
02.20	Check interior and exterior for damage, missing parts, decals, seats, stanchions, vents, panels, and locks.
02.30	Check window operations including emergency features.
02.40	Check all interior and exterior lights.
02.50	Check back-up lights and horn.
02.60	Check drivers mirror mounting and adjustment.
02.70	Check windshield wipers and washers. Rinse windshield - do not allow soap to dry.
02.71	Check engine belts-Fan -A/C -Alt etc.
02.73	Check Brake Fluid Level
02.77	Check power steeing fluid level.
02.80	Fill windshield washer reservoir.
03.30	Steam clean engine, transmission & radiator, before inspection and road test.
03.40	Road test - check engine performance, steering, suspension noise, transmission, and shift points.
03.41	1st ____ mph 2nd____ mph 3rd ____ mph 4th____
03.51	Decel test Service brakes _____ % _____ foot from 20 mph
03.60	Check Transmission Fluid Level.
03.81	Change oil and filter, take sample at operating temperature. Torque plug , 5w30 oil. 7QT FORD-6QT CHEVY
03.85	Replace Trans pick up filter- change ATF- Fill with 9qts Mercon LV
03.90	Change differential fluid -use 75W-90W fluid 5gallon can
03.91	Clean differential breather, check for fluid leaks
04.00	Change Anti-Freeze
04.10	Check fuel, oil, water, air, trans. & PS lines under bus for rubbing, kinks, frays & leaks
04.20	Check exhaust system.

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: D

Item Number	Description
04.30	Brake Linings - check wear for wear.6MM OK-5MM or less brakes Due.
04.31	RF _____ LF _____ RR _____ LR _____
04.50	Record tire air pressure. Fronts 80 psi- Rears 80 psi --cold
04.51	LF _____ RF_____ LRI _____ LRO _____ RRI _____ RRO _____
04.60	Record tire tread depth - Minimum of 6/32" on Fronts & 4/32 Rears
04.61	LF_____ RF _____ LRI _____ LRO _____ RRI _____ RRO _____
04.80	Undercarriage inspection.
04.90	Tie rods and ends.
05.10	Check ball joints-upper & lower -check front wheel bearing adjustment.
05.20	Check steering gear and linkage.
05.30	Check wheel seals.
05.60	Check drive line and u-joints & center support bearing.
05.70	Check shocks and bushings.
05.80	Check engine and transmission mounts; cradle supports.
05.90	Lube chassis.
06.00	Replace fuel filter DIESEL & GASOLINE
06.10	Replace Air cleaner
06.20	Check ground straps, battery cables, terminals, and starter connections.
06.30	Clean battery tops and terminals if needed-Check water level- Load test batteries.
06.32	Clean battery compartment. Load test both batteries.
06.34	1) _____ 2) _____
06.40	Clean or replace heater filter on rear heater-A/C.
06.90	Check fuel, oil, coolant, air, transmission, & PS lines in engine compartment.
07.10	Check coolant pretection level (-25 to -40)
07.40	Check all side compartment door latches, clean and lube.
07.42	Repack front wheel bearings
07.43	Rotate or flip rear Tires from side to side if needed. Fronts if side walls are bad.
07.44	Replace PCV valve- if equipped
07.45	Replace Spark Plugs-if equipped
07.50	Wheel stud nuts - check for proper torque.150-165lbs
07.52	If equipped; Remove hard drive.View hard drive for about 2 min, to make sure all cameras and sound are working normal. CHECK DATE, Time & bus number. .
07.53	Lube W/C & rear exit door key locks with dry lube

SALEM AREA MASS TRANSIT DISTRICT

Inspection Checklist Items

Inspection Id: RDL
Type: D

Item Number	Description
07.60	Check W/C LIFToperation
07.70	Lube W/C Piviot points & check fastners.
07.72	Remove pump module cover & inspect hoses, fittings, connections,cables, fuses & relays
07.73	Check fluid level-change if fluid looks contaminated.
07.75	Inspect micro switchs for security & adjustment
07.80	Check outer barrier operation.
07.81	Check inner barrier operation.
07.82	Check Threshold Warning Plate Alarm
07.83	Check cigarette lighter port and power port for power if equipped.
07.85	Check Toe In
07.87	Check file for drivers defects
07.88	Reset oil change light if equipped with.
07.90	Take for a SHORT test drive & check for leaks and fluid levels.

APPENDIX B
Daily Vehicle Inspection Report

Cherriots

Daily Vehicle Inspection Report

Vehicle No. _____ Date: _____

Operator's Name (Please Print)	RT / Run #	RT / Run #	RT / Run #	RT / Run #	RT / Run #	RT / Run #
1.						
2.						
3.						
4.						

1	2	3	4	Inspection Item	1	2	3	4	Inspection Item
				Headlights operational - High & Low beam		■	■		Triangle reflectors - red tie present
	■	■		Turn signals complete and operational		■	■	■	Seatbelt cutter present
	■	■		Emergency 4-way flashers operational		■	■	■	Check fire system says "OK"
				Clearance lights operational & reflectors present				■	Check camera system for "system ok".
				Mirrors are complete & in good condition					2-way radio is operational (key up mic)
	■	■		Bike rack is operational					Windshield wipers operational
				Windshields have no cracks/chips					Horn operational
			■	Route signs are operational before departing					Doors operational
	■	■		Tire Condition					Kneeling System operational
	■	■		Lug nuts tight, no rust or damage					W/C Ramp operating properly
	■	■	■	Coolant level (Orion 7 only)		■	■	■	Steering wheel secure, no excessive play
	■	■		Check under engine for leaks		■	■	■	List low air warning (by 60psi)_____
	■	■		Brake lights are complete and operational		■	■	■	Applied brake loss (no more than 3 psi in 60 sec)
	■	■		operational		■	■	■	Air compressor cut in (min 85 psi)_____
	■	■	■	Fuel cap secured (Except CNG)		■	■	■	Air compressor cut out (max 130 psi)_____
	■	■		Seats and cushions are secure, no vandalism					Parking brake complete and operating properly
	■	■	■	Tie-downs operational - # of tie-downs: ____					Brake pedal feels good and stopping properly
	■	■	■	Windows & panels secure before departing					Brake/throttle interlock operational
	■	■		First aid kit zip tie intact				■	Log on to farebox, check operation
	■	■		Fire extinguisher present and fully charged	■	■	■		Shut all windows and vents once returned to the facility.

Passing items indicate with a "√", failed items denote with an "X". Please explain in detail below any defect found with the vehicle or when a problem occurs prior to leaving the yard. Circle the diagrams below with any existing damage.

_____

_____

_____

I declare that I have properly performed a vehicle inspection on the vehicle indicated above and have inspected and marked the inspection items listed above accordingly.

Operator 1 Signature: _____

Operator 2 Signature: _____

Operator 3 Signature: _____

Operator 4 Signature: _____

☐ Reviewed Technician's Signature: _____

☐ Noted for Repair

☐ Could not duplicate problem Maint. Sup. Signature: _____

☐ Repaired

Comments:

Inspection of your vehicle is required by federal law and must be performed before moving the vehicle.

APPENDIX C
Transit Asset Management Targets

SAMTD TRANSIT ASSET MANAGEMENT									01/31/17
#	Reporting Category	Asset Inventory	Detail	Type	FTA Requirement (ULB)	CPC (ULB)	Performace Measure	SAMTD Current Performance	TAM Targets
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	35 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	40 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	35 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	100%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	40 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	55%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	32 ft.	Diesel/hybrid	10 yrs or 350K miles	12 yrs	Percent met or exceeded ULB	13%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	33 ft.	Diesel	10 yrs or 350K miles	12 yrs	Percent met or exceeded ULB	13%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (CU)	22-24 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	33%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (VN)	15 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Sevice Vehicle	Utility Non-Revenue Service	Maintenance Pickups	8 yrs.	10 yrs. or 150,000 miles	Percent met or exceeded ULB	17%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Sevice Vehicle	Staff Non-Revenue Vehicles	Supervisor vehicles and pool cars	8 yrs.	8-10 yrs. or 150,000 miles	Percent met or exceeded ULB	8%	0% of fleet above CPC ULB
3	Facilities	Maintenance Operations Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Administration Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Keizer Transit Center/ Layover	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Downtown Transit Center/ Layover	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale

*Useful life benchmark detail

**FTA Transit Economic Requirements Model Benchmark - Ratings below 3.0 for conditions

Equipment Benchmark - Age

Rolling Stock Benchmark - Age

Facilities Benchmark - Condition

Infrastructure Benchmark - Performance

CHERRIOTS

FACILITIES MAINTENANCE PLAN

MAY 2018

TABLE OF CONTENTS

Cherriots Facilities Maintenance Plan

Revision	Date	Reason
	10/31/15	Original
1	05/04/18	General Update – Cherriots 2018 Triennial Review
2	09/13/18	Update to Mechanical Equipment to include building envelope inspections (checklist inserted as Appendix M)

Title VI

Cherriots ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally-assisted programs and activities. For questions regarding Cherriots Title VI Program, you may call (503) 588-2424.

Americans with Disabilities Act (ADA) Information

The Americans with Disabilities Act, Title II, states, in part, that "no otherwise qualified disabled individual shall, solely by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in programs, services or activities sponsored by a public entity." At Cherriots, we are committed to complying with the requirements of Title II of the ADA in all of its programs, services, benefits and activities.

ACRONYMS

ADA	Americans with Disabilities Act
CNG	Compressed Natural Gas
FTA	Federal Transit Administration
HVAC	Heating, Ventilation and Air Conditioning
MSDS	Material Safety Data Sheets
PM	Preventative Maintenance
SDS	Safety Data Sheets
SPCC	Spill Prevention Control and Countermeasures
TAM	Transit Asset Management
UGB	Urban Growth Boundary

I. INTRODUCTION

Salem Area Mass Transit District, more commonly known as Cherriots, is a transit district based in Salem, Oregon. Cherriots provides weekday bus and paratransit service in Salem and neighboring Keizer, as well as to Marion and Polk counties. Salem Area Mass Transit District was established by the State of Oregon in 1979. Before then, the City of Salem operated bus service under the name Cherriots.

The population of Salem's urbanized area is around 236,000 along Interstate 5 and the population of the overall Cherriots service area is around 410,000, covering 76 square miles in the Willamette Valley of Oregon. In Fiscal Year 2016, annual Cherriots ridership between all services was just over 3.6 million, averaging 14,300 rides per day. Bus service operates with 53 peak vehicles. There are an additional 43 vehicles dedicated to providing Cherriots LIFT paratransit service.

Cherriots is governed by a seven-member, elected Board of Directors and provides service in both Marion and Polk counties. Salem is the Capital of Oregon, and the Salem-Keizer urbanized area is situated 47 miles south of Portland and 64 miles north of Eugene.

The range of Cherriots urban local fixed-route and commuter bus service, rural commuter express service, paratransit service, and dial-a-ride service specific to seniors and individuals with disabilities, provide approximately 3.6 million passenger trips annually. All Cherriots services operate Monday through Friday, 6:00 a.m. to 9:00 p.m., with no weekend service currently.

Cherriots local fixed-route bus services are primarily offered within the Salem-Keizer Urban Growth Boundary (UGB), as defined by state statute. The Cherriots Regional service connects the Salem-Keizer area with the city of Wilsonville to the north, where riders can directly access the Portland metropolitan area, as well as to surrounding, rural communities in Marion, Polk, Linn, Yamhill, and Clackamas counties. The population served by Cherriots full range of services is well over 500,000.

Cherriots mission is to connect people with places through safe, friendly, and reliable public transportation services. With 22 Cherriots local routes, fixed-route service provides regularly-scheduled transit service connecting workforce centers, a multitude of medical and health care services, senior centers, continuing education establishments, and shopping districts. Cherriots partners with outlying

communities to provide commuter express services that bring people directly from outlying areas to the critical services offered within the cities of Salem and Keizer.

Salem is the state capital and the county seat of Marion County. Cherriots operates specific routes that are aimed at providing transportation to large work centers, such as the Capitol Mall, Chemeketa Community College, and Salem Hospital. One of the busiest corridors of the city, Lancaster Drive, is home to malls and retail facilities. These are large employment providers and generate jobs for economically-disadvantaged individuals. The most popular destination of transit riders in east Salem is Chemeketa Community College, another large employer and our local community college.

The population of Cherriots service area grew 14.2 percent from 2000 to 2010, and is anticipated to grow at the same rate in future years. Approximately 58 percent of Cherriots riders do not have access to a vehicle, compared to 39 percent of neighboring Cherriots riders and 29.4 percent of Lane Transit District's riders.

While economic growth is slowly returning to the Salem-Keizer area, 29.4 percent of the residents of Marion and Polk counties still live below 150 percent of the federal poverty line and are considered "low-income" compared to 24.9% nationally.

Cherriots LIFT service provides complementary paratransit service under the Americans with Disabilities Act (ADA) within the UGB. Cherriots Shop and Ride is a shopper shuttle and dial-a-ride service available to seniors 60+ and individuals with disabilities with no required qualification. Cherriots operates Cherriots Regional providing commuter express and flex-route service in rural Marion, Polk, and Linn counties. Cherriots Trip Choice promotes and coordinates easy and cost-effective transportation options throughout Marion, Polk, and Yamhill counties. It offers information and coordination for carpooling, vanpooling, public transit, bicycling, walking, and telecommuting.

Cherriots serves the largest public and private employers in Salem. These are the State of Oregon offices (21,000 employees) and Salem Health (4,000 employees) respectively. A March 2014 comprehensive service analysis report identified 85% of jobs are located within a quarter mile of any bus stop in Cherriots transit service network. Focusing jobs, housing, and services to best take advantage of the Cherriots transit system ultimately will reduce the need to drive, therefore, enriching the lives of the community.

Cherriots operates local bus service in the Salem-Keizer area. Other services Cherriots provides are Cherriots Regional, Cherriots LIFT, and Cherriots Shop and Ride (see below). In addition to operating service, Cherriots offers travel training to riders and runs the Cherriots Trip Choice program – helping connect riders with transportation options, including transit, carpools and vanpools, biking, and walking.

Cherriots

Local bus routes serve local streets in the Salem-Keizer area, providing service within the Salem-Keizer UGB (Figure 1).

Cherriots Regional

Regional express routes provide bus service between towns and cities mostly in Marion and Polk counties. Additionally, Cherriots provides the Polk County Flex, an origin-to-destination service in Dallas, Monmouth, and Independence (Figure 2).

Cherriots LIFT

Origin-to-destination paratransit service provides rides to those who are unable to access regular bus service. LIFT serves the Salem-Keizer UGB. Riders must be found eligible and trips must be scheduled in advance. During Fiscal Year 2017, Cherriots provided 140,875 LIFT rides. Cherriots Contracted Services Department is part of the Operations Division, which includes Cherriots LIFT, Regional, and Shop and Ride services. The LIFT service is expressed in all caps to distinguish the program name from the vehicle lifts. LIFT is not an acronym. Cherriots operates LIFT service through a contract with a private-sector company, which provides staff for the operation of the vehicles. Cherriots owns and maintains the LIFT vehicles operated by the private company. Cherriots LIFT trips are reserved through the Cherriots Call Center, formerly known as Trip Link, which is also operated by a private-sector company. Cherriots provides the facility and all equipment to the Call Center. Cherriots additionally contracts with a private-sector company for Cherriots LIFT eligibility determinations. Cherriots is responsible for program, contract, and operations management for the LIFT transportation service, Call Center, and LIFT Eligibility.

Cherriots Shop and Ride

Shop and Ride includes both a shopper shuttle and origin-to-destination service for seniors and individuals with disabilities. This service operates throughout the Salem-Keizer UGB, and trips must be scheduled in advance.

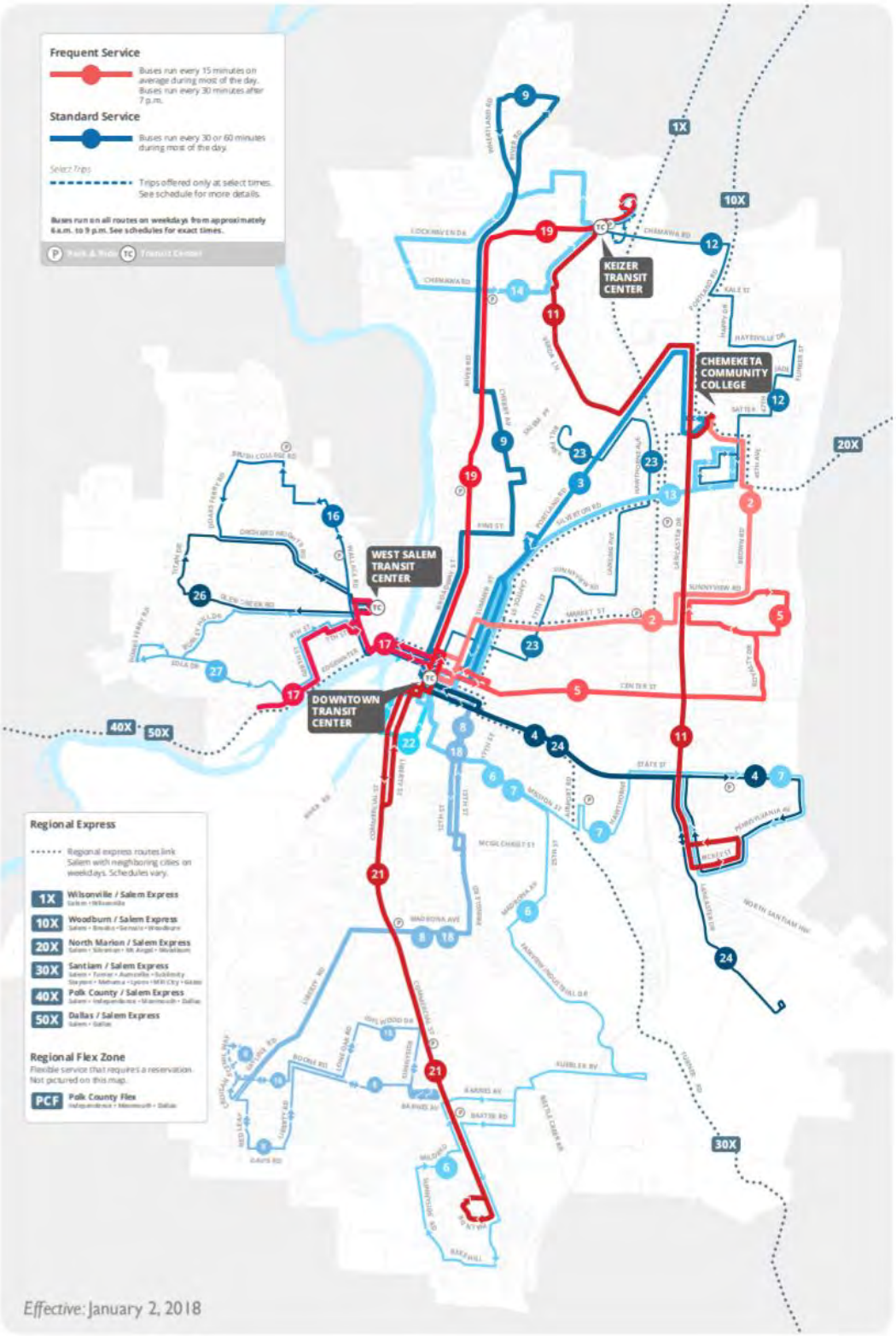
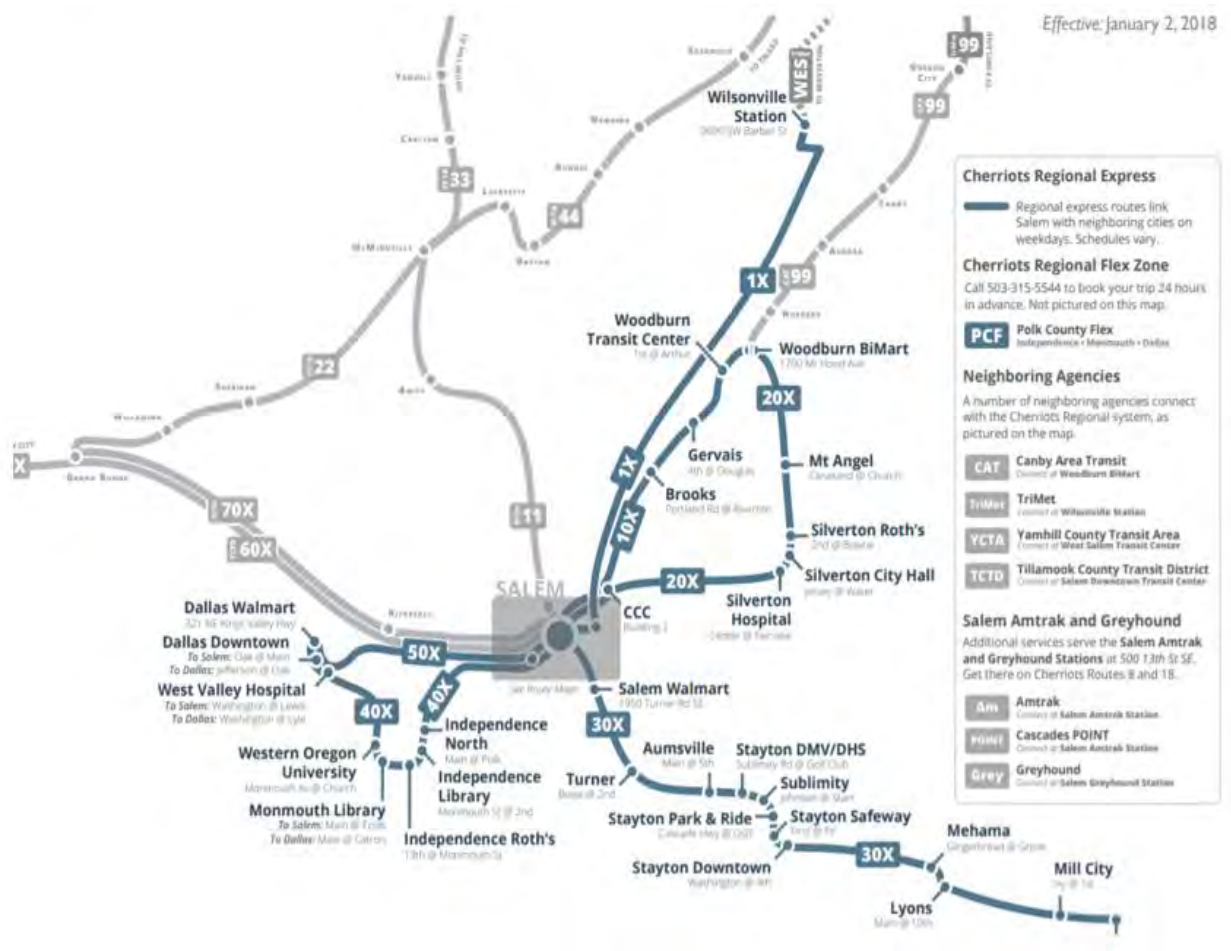


FIGURE 1 – Service Area

FIGURE 2 – Regional Routes



The Cherriots Maintenance Department is responsible for all aspects of maintaining, servicing, and cleaning of buses and support vehicles for transit services in the Salem-Keizer area. The Maintenance Department is also responsible for the upkeep and repair of Cherriots equipment and facilities, including bus stop signs and passenger shelters. The Maintenance Department strives to provide safe, reliable, and clean buses, using the most efficient and cost-effective maintenance practices, products, and personnel resources.

The primary elements of the Maintenance Department's function and the means by which it satisfies its responsibilities are described below, as well as descriptions of specific methods and procedures. As can be seen, the Maintenance Department continually seeks to improve operations, equipment, employee performance, and cost savings, thereby, providing the best possible service to the public.

II. PURPOSE OF THE PLAN

This comprehensive Facilities Maintenance Plan is established to help identify, improve and develop the maintenance program of Cherriots. A core divisional value is to ensure facilities that provide a safe and healthy environment. The mission of all Cherriots operations is to ensure the proper environment is provided, while managing the efficient use of all resources.

III. PLAN OBJECTIVES

The overall objective of the Facilities Maintenance Plan is to maintain, throughout its expected useful life, the interior and exterior of facilities, the grounds and parking areas, and all fixed and moveable equipment through preventive maintenance and repairs. Further, this objective is specifically intended to provide the following:

1. Facilities and their components which function safely and at top efficiency.

2. Facilities and equipment which greatly minimize the possibility of fires, accidents, and safety hazards.

3. Continuous use of facilities without disruptions to the transit operations.

4. Protection of Cherriots property through proper planning, scheduling, and preventive maintenance.

5. Provide quality management of maintenance projects and tasks.

6. Conservation of energy, through utilization of the latest technology and energy conservation measures.

7. Ensure a quality maintenance program through effective management and efficient utilization of resources.

8. Provide the best indoor air quality possible by maintaining a physical environment that supports the needs of the operational services, staff, customers and other stakeholders who use operational facilities and grounds.

IV. CHERRIOTS-OWNED FACILITIES

Starting in June 1988, Cherriots Administration, Operations, and Maintenance Divisions/Departments occupied the current Del Webb Facility. In October 2000, the Administration Department moved to a new transit mall facility in downtown Salem; this facility is called Courthouse Square. In September 2009, a capital project was completed adding 5,000 square feet to the existing vehicle maintenance building and 1,000 square feet to the Del Webb office spaces.

Del Webb Operations Building

The Del Webb Operations Building is located at 3140 Del Webb Avenue, NE, Salem, OR 97303. The building is the primary headquarters for the Transportation and Contracted Services Departments. Our fixed-route service employees report to the Operations Building. The Cherriots Call Center is located in the Del Webb building as well.

Del Webb Maintenance Building

The Del Webb Maintenance Building is located at 3170 Del Webb Avenue, NE, Salem, OR 97303. It provides approximately 28,000 square feet of space for: scheduled and unscheduled bus repairs and inspections; storage, maintenance, and charging of spare batteries; tire changing, repair, and storage; brake replacing, brake drum and linings turned and stored; glass repair; rebuilding major components, including cylinder heads, differentials, engines, and transmissions; rebuilding small components, such as pumps, starters, motors, compressors, and other air and electrical components; welding, cutting, and fabrication of hardware, brackets, engine cradles, and special tools; component tear-down and cleaning room; drum storage of chassis grease, automatic transmission fluid, gear and motor oil, and antifreeze; air compressor, refrigerated air dryer, and air pumps for the distribution of grease and oils to the service bays; secure storage of Cherriots-owned portable maintenance equipment, such as scaffolding, cranes, dollies, and jacks; parts receiving, storage, and distribution; toilet, locker room, showers, and lunchroom for Maintenance Department personnel; and, maintenance support and administrative functions.

In 2002, a CNG gas detection system was installed in the Maintenance Building. The gas monitoring system operates as a stand-alone, autonomous system, monitoring ambient methane (gas sensors). It is capable of receiving, analyzing and activating alarms and controlling the equipment that was installed as part of the system, such as the exhaust fans, fire door hold open devices, garage door openers, the new radiant heaters, shutting down of non-essential electrical systems and setting off the visual and audible alarms. At 20 percent LEL, it will sound and display the signaling devices, turn on the explosion proof exhaust fans, release the fire door holders, open two of the garage doors and turn off the radiant heaters. At 45 percent LEL, it will do all the above and shut down the non-essential electrical systems. A computer screen will tell what sensors are picking up a leak and at what LEL. Stand-alone computer monitors with 15 GasBoss sensors; the sensors are calibrated when the monitoring system reads above 10 or after a gas alarm event. A gas monitoring system with 10 infrared detectors was installed in the new shop addition in 2009. Calibration of these sensors is done annually.

The Maintenance Department includes many disciplines and functional areas with varied responsibilities for maintaining buses. The facility is designed, equipped and staffed to perform all maintenance functions, such as major component rebuilds, upholstery repairs, welding and fabrication, front end alignments, tire and brake repairs, in addition to essential daily maintenance activities, such as preventative maintenance inspections, running repairs, servicing and cleaning, and other support functions.

Keizer Transit Center

The Keizer Transit Center is located at 5860 Keizer Station Blvd. NE, Keizer, OR 97303. This location serves as a transit center for customers as well as a layover location for Cherriots Transportation and Maintenance employees. There are restroom facilities for employees and the public. There is an employee breakroom and a medium-sized conference room for meetings. There is also a security office.

Downtown Transit Center

The Downtown Transit Center is located at 220 High Street NE, Salem, OR 97301. This location serves as a transit/transfer location for customers and as a layover for District employees. There is a Customer Service office, Security office, Transportation Department Supervisors' office, and an employee breakroom.

V. FACILITIES STRUCTURE

A. BUILDING MAINTENANCE

The Maintenance Department is responsible for providing ongoing quality maintenance of the facility structures and technical operations by integrating preventative maintenance with proactive response to repairs and modifications. Performance and administration of all facility construction, maintenance is the responsibility of the Maintenance Manager, Facilities Maintenance Supervisor, and the Facilities Maintenance Workers. The Facilities Maintenance Supervisor and Facilities Maintenance Workers report to the Maintenance Manager.

The Facilities Maintenance Department is responsible for the following:

- Identify, coordinate and provide follow-up on all warranty repairs on buildings, equipment and systems through designated contractors, sub-contractors, and suppliers, ensuring that all work is completed in full compliance with all applicable city, state or federal ordinances, codes and laws.
- Perform preventative maintenance (PM) and general building maintenance.
- Coordinate, schedule and arrange for all repairs for building equipment or systems that require services by an outside contractor (i.e., parts cleaning equipment, landscape maintenance, environmental waste disposal, window cleaning service) or any other contracted service.
- Provide oversight and management of various environmental programs.
- Responsible for all related labor, tools, equipment, and other services required to carry out the mission of the Maintenance Department, including, but not limited to, identifying potential problems and coordinating repairs of the buildings' mechanical equipment, electrical utility systems, plumbing, water systems, and HVAC systems.
- Research, identify and requisition all repair parts or other materials needed to accomplish required tasks, by coordinating parts and material requisitions with the Purchasing Department.
- Establish and maintain an onsite library of all technical publications and service manuals relating to equipment and systems within the facility.
- Establish and maintain individual comprehensive equipment maintenance records for all facility-related equipment and systems in conjunction with equipment maintenance management software.

B. FACILITIES WORK REQUESTS

Del Webb Operations and Maintenance Buildings, Keizer Transit Center:

Internally-generated Facilities Work Requests are created by email and prioritized by the Facilities Maintenance Supervisor, with safety given the highest priority. The Facilities Maintenance Supervisor will create a work order and monitors progress of the request. The level of service is monitored and reviewed by the Facilities Maintenance Supervisor. The need for modifications or service improvements is communicated through the Facilities Maintenance Supervisor to the Maintenance Manager. Work is prioritized as follows:

- **Emergency:** Work requested is intended to protect the life, health and safety of customers and employees.
- **High**: Work requested is intended to ensure the functioning of the operation.
- **Medium**: Work requested is not emergency, high priority or cosmetic in nature. Most work requests will fall in this category.
- **Low**: Work requested is strictly cosmetic in nature.

Courthouse Square (Leased from Marion County):

The Courthouse Square office building located downtown is leased from Marion County. Facility work requests for this location are accessed and submitted electronically to Marion County according to their established request procedure. These facility work requests are submitted by and monitored for completion by the Facilities Maintenance Supervisor. (Marion County Work Order Procedure can be found in Appendix A.)

C. CUSTODIAL SERVICES

Custodial services are performed by in-house personnel. Facilities Maintenance Workers are responsible for maintaining offices, restrooms, carpeted areas, flooring and windows. (Frequency schedules can be found in Appendix B.)

D. ELECTRICAL, PLUMBING AND HVAC SYSTEMS

The Facilities Maintenance Department holds primary responsibility for the ongoing preventative maintenance and repair of facilities electrical, plumbing, heating,

ventilation and air conditioning systems, in addition some of which is handled by outside contractors. (Exterior Light Fixtures Map can be found in Appendix C.)

E. ENERGY MANAGEMENT PROGRAM

Conservation is made through a multitude of electrical and water conservation systems throughout the facilities. These include, but are not limited to, energy efficient lighting, occupancy sensors, skylights, energy efficient air conditioning and metered or waterless plumbing fixtures. The maintenance manager and facilities maintenance supervisor review utility use monthly.

F. LANDSCAPE MAINTENANCE

The landscaping of the facility is planned with water conservation as a priority, utilizing drought resistant vegetation, low water use foliage and efficient irrigation systems that are on automatic timers for most efficient use.

G. FUEL ISLAND MAINTENANCE

The Facilities Maintenance Department's primary responsibility is to maintain the safe and efficient operation of all fuel island equipment. Cherriots consists of Compressed Natural Gas (CNG) and Clean Bio-Diesel fuels. Fuel island operations are conducted in compliance with all city, county, state, and federal mandates. The Facilities Maintenance Department monitors inspections, permits, aboveground storage tanks, and tank monitoring equipment certifications.

H. ENVIRONMENTAL PROTECTION OPERATIONS

The Facilities Maintenance Department is responsible for implementing, managing, and monitoring the movement and disposal of hazardous materials and other potential pollutants in and around facilities as mandated by city, county, state, and federal authorities and agencies.

The Facilities Maintenance Department management of various environmental programs, are as follows:

1. HAZARDOUS WASTE DISPOSAL AND SPILL PREVENTION

The Facilities Maintenance Department is responsible for disposing of hazardous waste and preventing spills of environmental contaminants as follows:

a. Coordinating pick-up/disposal of hazardous wastes generated by bus maintenance, including used oil, filters, sludge from water clarifiers and oil/water separators.
b. Implementing the functions of the Antifreeze Recycling Program.

c. Managing operations in conjunction with the guidelines set forth by SAMTD's Hazardous Waste Spill Prevention Control and Countermeasures Plan (SPCC). (Spill Kit Inspection Form can be found in Appendix D.)

2. HAZARDOUS MATERIALS HANDLING

The Facilities Maintenance Department oversees and monitors all inventories of hazardous materials, including various petroleum and paint products, as well as oil inventories stored in ground. Management monitors and anticipates inspections by supervising agencies and permit renewals. The Facilities Maintenance Department works with the State of Oregon DEQ and Fire Marshall regarding hazardous substance reporting and tank inspections. The Facilities Maintenance Department maintains a comprehensive library of all Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) for all chemicals used in and around the facility.

3. BUS WASH SYSTEM

The Facilities Maintenance Department is responsible for the general maintenance, water testing and inspection of the bus wash system. The system is fully automated for maximum efficiency. A sample list of Facilities/Equipment PM frequencies can be found in Appendix A.

VI. EQUIPMENT MAINTENANCE AND REPLACEMENT

The Facilities Maintenance Department is responsible to provide ongoing quality maintenance of the facilities equipment by integrating scheduled preventative maintenance with proactive response to unscheduled or emergency repairs and modifications, and to make informed, fiscally-responsible decisions regarding appropriate replacement of facilities equipment.

A. OVERVIEW

Cherriots uses a number of processes to track and manage the scheduled and unscheduled maintenance and preventative maintenance of all equipment and facilities repairs. It enables staff to track, schedule and control all maintenance activities. Information generated from its multitude of reports allows staff to efficiently make decisions regarding infrastructure, equipment management, and facilities and equipment life cycles.

B. EQUIPMENT INVENTORY AND CLASSIFICATION

All facilities equipment has been identified and records are kept and maintained by the Facilities Maintenance Supervisor.

- Del Webb Elevator

  The facility elevator and overhead crane is inspected and serviced monthly by a certified outside company.

- Bus Wash

  A chassis wash operates for steaming and high-pressure water cleaning of bus undercarriages, engines, wheels and components. A drive-through, automatic bus wash is housed in a 1,500 square foot building with wash water reclamation tank storage and pump room. (Bus Wash Maintenance Checklist can be found in Appendix E.)

- Tanks

  The following underground storage tanks are located near the Fuel Island and Maintenance Facility for economical purchasing and storing of liquid consumables in bulk:

  (2) 20,000 gallon diesel fuel tanks
  (1) 2,000 gallon unleaded gasoline tank
  (1) 2,000 gallon engine oil tank
  (1) 2,500 gallon waste oil tank

  Protection of tanks from internal and external corrosion is accomplished by using corrosive-resistive, double-walled fiberglass reinforced plastic tanks. Each tank is individually monitored by an electronic leak detection system

and has spill prevention controls. The 2,000 gallon tank for used oil and the 2,000 gallon engine oil tank are tested annually for tank integrity. The lines to the two 20,000 gallon diesel tanks and the 2,000 gallon unleaded tank are pressure-tested annually. In addition, it is verified that the monitoring system is performing correctly. All of these tests are done by an outside, certified party.

- Fueling Station
  The fueling/servicing station provides a structure where workers simultaneously clean the interior of the bus, check and add fluids, fill the fuel tank with diesel fuel or compressed natural gas, check tires for under-inflation, and walk around the bus inspecting for defects.

- CNG Station

  In December 1998, Cherriots installed a natural gas compressing station and dispenser. The station is a twin compressor unit capable of 960 s.c.f.m. output. There is one storage vessel with a 10,000 s.c.f. capacity at 5,000 p.s.i. maximum operating pressure.

  In September 2005, Cherriots expanded CNG fueling capabilities. Twin IMW compressors capable of 824 s.c.f.m. output were added. Six storage tanks were added with 50,000 s.c.f. capacity, to bring our total storage capacity to 60,000 s.c.f.

  Metered fill posts were added, consisting of two transit hoses and nozzles and one light-duty hose and nozzle. These fill posts were integrated into and controlled by our fuel management system.

  At this time, the existing compressors have soft starters installed on the motors to conserve electricity and the programmable logic controller was upgraded to communicate and operate with the new compressors. The goal was to fuel two buses at the same time, approximately 50 gallon diesel equivalent in 10 minutes.

  (CNG Fueling Station Maintenance Schedule can be found in Appendix F.)

- General Equipment

- Equipment is inspected on a regular basis, and defective equipment is tagged and taken out-of-service until repairs are made and equipment is in good working order.

- Hoists are used daily. Repairs are performed as soon as possible and tagged out until repairs are completed. (Mobile Vehicle Lifts Daily Checklist can be found in Appendix G.)

- Heating units are inspected quarterly when filters are changed.

- Eyewash stations are flushed and inspected weekly.

- Air Compressor is maintained in accordance with manufacturer's recommended schedule. (Air Compressor Maintenance Schedule can be found in Appendix H.)

- Facilities Work Order requests are available to employees to be completed for any repairs that arise. Facilities are inspected quarterly by the Safety Committee.

C. GENERAL UPKEEP

Cherriots has adopted procedures to ensure the facility will achieve its maximum useful life. With respect to cleaning, all office and common areas are cleaned daily by maintenance employees. The maintenance shop, bus wash, and fuel island areas are swept daily and washed down weekly. The yard, drive and walkways are maintained on an as-needed basis. (Maintenance Wednesday Checklist can be found in Appendix I.) (Floor Scrubber Maintenance Checklist can be found in Appendix J.)

D. LANDSCAPING

Landscaping is designed for both aesthetic purposes and ease of maintenance. An outside contractor maintains plants, trees, and shrubs.

E. MECHANICAL EQUIPMENT

All mechanical equipment is maintained in compliance with manufacturer's specifications. In the event of equipment failure, qualified personnel perform

repairs immediately. The building structure is kept in a 'like new' condition. Walls are washed, repaired, or painted as needed.

Certified contractors perform yearly inspections on the fire alarm systems, sprinkler systems, cranes, backflow devices, and the fire extinguishers. Pressure vessels are inspected by state agencies.

All District buildings will be inspected throughout the year. The building roofs, gutters and doors are inspected quarterly. (Building Envelope Quarterly Checklist can be found in Appendix M.)

F. COURTHOUSE SQUARE

Located at 555 Court Street NE, Cherriots occupies roughly 50% of the 5th floor for the administrative staff. The 1st floor contains the operators break room, restrooms, Customer Service, quiet room, Security offices and conference spaces. Additionally, SAMTD shares a meeting room with Marion County.

G. WARRANTIES

Warranty claims vary by supplier and the nature of the product. Claims are processed in a variety of ways: warranty service orders, phone calls, faxes, and meetings with supplier representatives until a satisfactory settlement has been received. Warranty claims are recorded prior to submission to the manufacturer.

H. FACILITIES/EQUIPMENT PREVENTATIVE MAINTENANCE INSPECTION PROGRAM

A Preventative Maintenance Inspection (PM) is generated for each of the facilities/equipment at each property. These PM's are based on manufacturer's specifications to achieve the highest operational efficiency while considering conservation and budgetary planning. Work orders are generated based on preprogrammed timeframes.

I. CONSTRUCTION MANAGEMENT

The Facilities Maintenance Department is responsible for all building/site improvements and construction. During a project, the Facilities Maintenance Department would oversee all construction management and supervision.

VII. SAFETY SYSTEMS

A. FIRE PREVENTION/SUPPRESSION/LIFE SAFETY SYSTEMS

To provide immediate suppressive response to abnormal levels of air contaminants, high levels of heat, smoke, or fire in all areas of the facilities, each building is equipped with a smoke alarms.

B. ESCAPE AND EVACUATION PLAN

The plans for escape and evacuation of individuals from the facilities have been developed and implemented to concur with the recommendations of the Salem Fire Department. Annual drills are conducted in which all employees participate to review these emergency escape routes.

VIII. SERVICE STANDARDS AND METHODS

A. BUILDING CODES

Various federal, state and city codes (Building, Safety, Fire, Health, ASHRAE, ADA and indoor air quality) change from time-to-time. These standards must be adhered to in order to ensure a safe, accessible and healthy building environment for employees and the public. Maintaining compliance with these code modifications is certainly a cost factor that must be considered in addition to regular building maintenance.

B. NEW MEASURES

New technology and energy savings measures related to building equipment and components need to be carefully considered and incorporated into the building maintenance program in order to insure a more cost effective level of maintenance.

These new technological advances may require the development of revised maintenance and operations procedures and may reduce operating costs. While such advances may show a first-time or one-time increase in the maintenance budget, there may be significant long-term decrease in the plant operations budget or increase in life.

C. CONDITION ASSESSMENTS

The condition of existing facilities need to be considered, as well as frequency of use of facilities beyond the normal day when evaluating the overall maintenance effort. These factors create a significant impact to the plant maintenance program to provide adequate funding, staffing, and effective building maintenance.

D. SERVICE STANDARDS

Maintenance service standards for facilities are best established through adequate program administration and supervision, effective employee selection and training and maintaining employee performance within the organization.

E. PREVENTATIVE MAINTENANCE

The custodial services component is an important consideration in assessing overall maintenance levels and determining costs associated with building maintenance. An effective building operation function should complement the centralized facilities maintenance function to provide an overall effective facilities maintenance program. Cherriots has developed and implemented such a plan. We feel this combined effort is providing an effective facilities maintenance program.

There are several methods for performing required facilities and equipment maintenance that have proven to be cost-effective and are presently being utilized at Cherriots. They include:

1. Utilization of a centralized maintenance in-house workforce.
2. Effective use of Cherriots personnel to perform preventative maintenance.
3. Utilization of outside contractors and service agreements, as needed.

A full-time Cherriots maintenance workforce provides the following services:

- Emergency response to power failures, plumbing, heating and air conditioning failures.
- Monitoring energy management with state-of-the-art computerized system.
- Interior and exterior painting.
- Carpentry, electrical, plumbing, HVAC service and minor roof repairs.
- Grounds maintenance, mowing, landscaping, etc.
- Minor building modifications.
- Vandalism repairs.
- Maintenance and repairs to fire and security systems.
- Hardware maintenance and repairs.

- Situational Response – ensuring the Facilities Maintenance Department is prepared, facilities maintenance trucks are checked weekly for adequate response supplies. (Facilities Trucks Response Supply Checklists can be found in Appendix K.)

The contracted services component relates to the following areas:

- HVAC chiller service.
- Elevator maintenance and inspection.
- Energy management control service.
- Fire sprinkler systems maintenance and inspection.
- Roof repair and inspection.
- Fire extinguisher inspection and service.
- Fire and security monitoring.
- Bleacher inspection.
- Plumbing repairs (major).

Automated processes are essential to the operation of the maintenance program at Cherriots, with various systems that are used for a variety of activities all intended to assist managing the daily operation and maintenance of all facilities.

IX. TRANSIT ASSET MANAGEMENT TARGETS

Cherriots establishes transit asset management targets (state of good repair) based on FTA Useful Life requirements. (Transit Asset Management Targets can be found in Appendix L.)

APPENDICES

APPENDIX A
Marion County Work Order Procedure

	Log onto https://www.myfacilitydude.com The screen below will appear, fill out and submit.
	Welcome In the event of an actual life safety emergency please call 9-911 To submit your request complete the following form and refer to the priority choices to complete step #3 to aid the maintenance staff with identifying the urgency of your needs. Priority Choices: · Emergency Requests-Staff will drop everything and respond. Please call 503-588-5154 in addition to your written request. · High-Staff will respond by end of business day. · Medium-Staff will respond by end of the business week. · Low-Staff will respond a.s.a.p. within the month.
Step 1	Please be yourself, click here if you are not Trent McCoy
	First Name Trent **Last Name** McCoy **Email** trent.mccoy@cherriots.org **Phone** 503-361-7577 **Pager** **Cellular Phone** 503-910-5323
Step 2	**Location**
	Your current location is **S-CS-Courthouse Square** Change Location Bldg./Unit Area -- Select Area -- Area/Room Number ☐ Yes, remember my area entries for my next new request entry.
Step 3	**Priority:**
	Low
Step 4	**Select Problem Type:**

Maintenance Help Desk:

Click here for Maintenance Emergency Contacts

Click on the problem type below that best describes your issue.

Appliance Repair	Architect	Custodial	Delivery
Doors and Hardware	Electrical	Fire Sprinkler System	Furniture
General Maintenance	Grounds	Health/Safety	Heating/Ventilation /Air Conditioning
Lead	Lighting	Mechanical	Plumbing
Refrigeration	Risk Management	Security	Special Projects
Surplus	Training		

Emergency Contact

Contact Name	Contact Phone
Terry Stoner	503-588-5154

Step 5 Please describe your problem or request.

Step 6 Time Available for Maintenance

Step 7 Purpose

-- Select Purpose --

Step 8 **Requested Completion Date**

	(A valid date is required. Text is not accepted, but you may leave it blank. Click here for assistance in date entry.)
Step 9	Budget _580-11-00-
Step 10	Attachment Attach New File (Maximum allowed is two attachments with a size of 3MB or less per file.)
Step 11	Submit NOTE: You will receive the following notifications. You will be notified if this request is completed. You will be notified if this request is marked as voided. You will be notified when this request has been duplicated.

APPENDIX B
Custodial Services – Frequency Schedules

Frequency Schedule – Del Webb Facilities

FREQUENCY SCHEDULE

The following schedule of daily, weekly, monthly, quarterly, and semi-annual janitorial services is provided to identify work to be accomplished on a regular and on-going basis. Janitorial personnel will review this schedule daily and mark each activity as the services are completed.

DAILY SERVICES

I. Administration/Operations Office (3140 Del Webb Avenue Northeast)

A. Restrooms (4)

	Mon	Tue	Wed	Thu	Fri
Sweep, wet-mop, or scrub floors with disinfectant.					
Wash and sanitize water closets, urinals and wash basins (maintain traps odor-free).					
Damp wipe and polish mirrors, dispensers and chrome fixtures.					
Damp wipe and polish all other surfaces (walls, doors, partitions).					
Empty and wipe clean waste receptacles. Replace plastic liners.					
Service toilet tissue, seat cover, paper towel, sanitary napkin/tampon, and soap dispensers.					
Replace burned-out light bulbs.					

B. Shower Stalls (2)

	Mon	Tue	Wed	Thu	Fri
Damp wipe and polish dispensers and chrome fixtures.					
Spot clean and polish all other surfaces (walls, bench, doors, partitions).					

C. Office Area, Conference Rooms, and Storerooms.

	Mon	Tue	Wed	Thu	Fri
Vacuum all carpeted floors.					
Vacuum chairs in main entry.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Dust all horizontal surfaces including furniture, desks, filing cabinets, wall cabinets, window ledges, baseboards, chair rails, etc. NOTE – do not disturb materials left on surfaces to be cleaned.					
Replace burned-out light bulbs.					

D. Lunchroom/Driver Area (Operations)

	Mon	Tue	Wed	Thu	Fri
Vacuum floor and Wet mop vinyl floors with mild detergent.					
Empty and wipe clean waste receptacles. Replace plastic liners in waste receptacles.					
Wipe clean all other surfaces (walls, tables, counters, doors, exterior of all appliances) and dust horizontal surfaces.					
Neatly arrange and/or put books and magazines in designated area.					
Wash and sanitize sinks and drinking fountain.					
Replace burned out light bulbs.					

E. Hallways, Lobby, and Sidewalks

	Mon	Tue	Wed	Thu	Fri
Vacuum carpeted floors.					
Spot clean vertical surfaces (doors, walls, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					
Sweep sidewalks and pick up trash at entry door areas of building.					
Clean smoking shelter area.					
Replace burned-out light bulbs.					

II. Maintenance Facility (3170 Del Webb Avenue Northeast)

A. Restrooms (2), Locker Rooms, Shower Stalls

	Mon	Tue	Wed	Thu	Fri
Wash and disinfect locker room floors, and shower stalls.					
Sweep, wet mop or scrub floors with disinfectant.					
Wash and sanitize water closets, urinals and wash basins (maintain traps odor-free).					
Damp wipe and polish mirrors, dispensers, and chrome fixtures.					
Damp wipe and polish all other surfaces (walls, doors, partitions).					
Empty and wipe clean waste receptacles. Replace plastic liner.					
Service toilet tissue, seat cover, paper towel, sanitary napkin/tampon, and soap dispensers.					

B. Lunchroom (Mezzanine)

	Mon	Tue	Wed	Thu	Fri
Sweep and mop all floors with mild detergent.					
Empty and wipe clean waste receptacle. Replace plastic liners in waste receptacles (all waste receptacles must be maintained odor free).					
Spot clean walls and doors.					
Wipe clean all tables, counters, and exterior of appliances.					
Dust all other horizontal surfaces.					
Wash and sanitize sink. (2) as designated.					
Neatly arrange books and magazines.					
Replace burned-out light bulbs.					

C. Office Areas (4), Hallways, Elevator (First Floor and Mezzanine)

	Mon	Tue	Wed	Thu	Fri
Sweep and mop all floors with mild detergent.					
Empty and wipe clean waste receptacles. Replace plastic liners as needed.					
Dust all horizontal surfaces including furniture, desks, filing cabinets, wall cabinets, window ledges, baseboards, chair rails, etc. NOTE: Do not disturb materials left on surfaces to be cleaned.					
Clean and sanitize wash basin in hallway on main floor (outside men's restroom).					
Clean and sanitize drinking fountain.					
Replace burned-out light bulbs.					

WEEKLY SERVICES

I. Administration/Operations Building

	Week 1	Week 2	Week 3	Week 4	Week 5
Vinyl and tile floors scrubbed and disinfected in restrooms, locker rooms and lunchrooms.					
Men's Only -- Wash and disinfect floors & stall walls					
Wipe door frames, window frames and venetian blinds with treated dust cloths.					
Clean interior and exterior of glass on all interior and exterior doors.					
Clean telephones.					
Remove smudges and fingermarks from doors and adjacent areas, woodwork, walls, and light switches.					
Wash counter tops and tabletops with neutral soap and water.					
Janitor closet floor, sink and walls cleaned.					

II. Maintenance Building

	Week 1	Week 2	Week 3	Week 4	Week 5
Vinyl and tile floors scrubbed and disinfected in restrooms, locker rooms, and lunchrooms.					
Wipe door frames, window frames, and Venetian blinds with treated dust cloths.					
Clean telephones.					
Remove smudges and finger marks from doors and adjacent areas, woodwork, walls, light switches, partition glass, and elevator.					

MONTHLY SERVICES

Month: _____

I. Administration/Operations Building

Spray buff or seal tile floors after washing and disinfecting.	
Scrub wall surfaces, partitions, doors, sills, and waste receptacles in restrooms.	
Dust wall surfaces within 84" of floor and under surfaces such as knee wells on desks, table legs, etc.	
Clean plastic upholstered furniture and spot clean upholstered furniture.	
Clean kick plates, push plates and door handles from entrance doors, and remove oil, grease, mold, etc. from around latches, hinges and frame.	
Clean exterior of all light fixtures and ventilation ducts.	
Clean, relight areas around all interior and exterior doors.	
Clean both sides of glass skylights over all exterior doors.	
Wash all wastebaskets.	

II. Maintenance Building

Spray buff or seal tile floors after washing and disinfecting.	
Scrub wall surfaces, partitions, doors, sills, and waste receptacles in restrooms.	
Dust wall surfaces within 84" of floor and under surfaces such as knee wheels on desks, table legs, etc.	
Clean plastic upholstered furniture and spot clean upholstered furniture.	
Clean kick plates, push plates and door handles from entrance doors, and remove oil, grease, mold, etc. from around latches, hinges and frame.	
Clean exterior of all light fixtures and ventilation ducts.	
Wash all wastebaskets.	

QUARTERLY SERVICES

3-Month Period: _____

I. Administration/Operations Building

Women's Only -- Wash and disinfect floors & stall walls	
Dust or vacuum all ventilating and air conditioning outlets.	
Clean and polish metal thresholds.	
Polish bright metal and woodwork.	
Change air freshener in restrooms.	
Clean carpets with extractor.	

II. Maintenance Building (Office, Restrooms, Hallways, Elevator)

Dust or vacuum all surfaces over 84" from the floor and ceilings.	
Dust or vacuum all ventilating and air conditioning outlets.	
Clean and polish metal thresholds.	
Polish bright metal and woodwork	
Change air freshener in restrooms.	
Clean carpets with extractor.	

Frequency Schedule – Downtown Facility (1st Floor)

FREQUENCY SCHEDULE

The following schedule of daily, weekly, monthly, quarterly, and semi-annual janitorial services is provided to identify work to be accomplished on a regular and on-going basis. Janitorial personnel will review this schedule daily and mark each activity as the services are completed.

DAILY SERVICES

I. Administration/1st floor (555 Court Street)

A. Restrooms (4)

	Mon	Tue	Wed	Thu	Fri
Sweep, wet-mop, or scrub floors with disinfectant.					
Wash and sanitize water closets, urinals and wash basins (maintain traps odor-free).					
Damp wipe and polish mirrors, dispensers and chrome fixtures.					
Damp wipe and polish all other surfaces (walls, doors, partitions).					
Empty and wipe clean waste receptacles. Replace plastic liners.					
Service toilet tissue, seat cover, paper towel, sanitary napkin/tampon, and soap dispensers.					
Replace burned-out light bulbs.					

B. Office Area, Conference Rooms, and Storerooms.

	Mon	Tue	Wed	Thu	Fri
Vacuum all carpeted floors. Sweep and mop hard floors.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Dust all horizontal surfaces including furniture, desks, filing cabinets, wall cabinets, window ledges, baseboards, chair rails, etc. NOTE – do not disturb materials left on surfaces to be cleaned.					
Replace burned-out light bulbs.					

C. Lobby.

	Mon	*Tue*	*Wed*	*Thu*	*Fri*
Sweep and Mop floors.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Spot clean vertical surfaces (doors, walls, windows, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					
Wash and sanitize drinking fountain.					
Replace burned-out light bulbs.					

D. Lunchroom

	Mon	Tue	Wed	Thu	Fri
Sweep floor and wet mop floors with mild detergent.					
Empty and wipe clean waste receptacles. Replace plastic liners in waste receptacles.					
Wipe clean all other surfaces (walls, tables, counters, doors, exterior of all appliances) and dust horizontal surfaces.					
Neatly arrange and/or put books and magazines in designated area.					
Wash and sanitize sink.					
Replace burned out light bulbs.					

E. Hallways.

	Mon	Tue	Wed	Thu	Fri
Vacuum carpeted floors.					
Spot clean vertical surfaces (doors, walls, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					

WEEKLY SERVICES

I. CH2 Ist

	Week 1	Week 2	Week 3	Week 4	Week 5
Tile floors scrubbed and disinfected in restrooms, lunchroom and offices.					
Wipe door frames, window frames and venetian blinds with treated dust cloths.					
Clean interior and exterior of glass on all interior and exterior doors.					
Clean telephones.					
Remove smudges and fingermarks from doors and adjacent areas, woodwork, walls, and light switches.					
Wash counter tops and tabletops with neutral soap and water.					
Janitor closet floor, sink and walls cleaned.					

MONTHLY SERVICES

Month: _____

I. CH2 1st

Spray buff or seal tile floors after washing and disinfecting.	
Scrub wall surfaces, partitions, doors, sills, and waste receptacles in restrooms.	
Dust wall surfaces within 84" of floor and under surfaces such as knee wells on desks, table legs, etc.	
Clean plastic upholstered furniture and spot clean upholstered furniture.	
Clean kick plates, push plates and door handles from entrance doors, and remove oil, grease, mold, etc. from around latches, hinges and frame.	
Clean exterior of all light fixtures and ventilation ducts.	
Clean, relight areas around all interior and exterior doors.	
Wash all wastebaskets.	

QUARTERLY SERVICES

3-Month Period: _____

I. CH2

Dust or vacuum all ventilating and air conditioning outlets.	
Clean and polish metal thresholds.	
Polish bright metal and woodwork.	
Clean carpets with extractor.	
Change air freshener in restrooms.	

Frequency Schedule – Downtown Facility (5th Floor)

FREQUENCY SCHEDULE

The following schedule of daily, weekly, monthly, quarterly, and semi-annual janitorial services is provided to identify work to be accomplished on a regular and on-going basis. Janitorial personnel will review this schedule daily and mark each activity as the services are completed.

DAILY SERVICES

I. Administration/5th Floor (555 Court Street)

A. Restrooms (2)

	Mon	Tue	Wed	Thu	Fri
Sweep, wet-mop, or scrub floors with disinfectant.					
Wash and sanitize water closets, urinals and wash basins (maintain traps odor-free).					
Damp wipe and polish mirrors, dispensers and chrome fixtures.					
Damp wipe and polish all other surfaces (walls, doors, partitions).					
Empty and wipe clean waste receptacles. Replace plastic liners.					
Service toilet tissue, seat cover, paper towel, sanitary napkin/tampon, and soap dispensers.					
Replace burned-out light bulbs.					

B. Office Area, Conference Rooms, and Storerooms.

	Mon	Tue	Wed	Thu	Fri
Vacuum all carpeted floors.					
Vacuum chairs in main entry.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Dust all horizontal surfaces including furniture, desks, filing cabinets, wall cabinets, window ledges, baseboards, chair rails, etc. NOTE – do not disturb materials left on surfaces to be cleaned.					

Replace burned-out light bulbs.					

C. Lunchroom/Quiet Room

	Mon	Tue	Wed	Thu	Fri
Wet mop vinyl floors with mild detergent.					
Empty and wipe clean waste receptacles. Replace plastic liners in waste receptacles.					
Wipe clean all other surfaces (walls, tables, counters, doors, exterior of all appliances) and dust horizontal surfaces.					
Neatly arrange and/or put books and magazines in designated area.					
Wash and sanitize sinks.					
Replace burned out light bulbs.					

D. Hallways, Lobby

	Mon	Tue	Wed	Thu	Fri
Vacuum carpeted floors.					
Spot clean vertical surfaces (doors, walls, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					
Replace burned-out light bulbs.					

WEEKLY SERVICES

I. Administration/5th Floor

	Week 1	Week 2	Week 3	Week 4	Week 5
Vinyl and tile floors scrubbed and disinfected in restrooms and lunchrooms.					
Wipe door frames, window frames and venetian blinds with treated dust cloths.					
Clean interior and exterior of glass on all interior and exterior doors.					
Clean telephones.					
Remove smudges and fingermarks from doors and adjacent areas, woodwork, walls, and light switches.					
Wash counter tops and tabletops with neutral soap and water.					

MONTHLY SERVICES

Month: _____

I. Administration/5th Floor

Spray buff or seal tile floors after washing and disinfecting.	
Scrub wall surfaces, partitions, doors, sills, and waste receptacles in restrooms.	
Dust wall surfaces within 84" of floor and under surfaces such as knee wells on desks, table legs, etc.	
Clean plastic upholstered furniture and spot clean upholstered furniture.	
Clean kick plates, push plates and door handles from entrance doors, and remove oil, grease, mold, etc. from around latches, hinges and frame.	
Clean exterior of all light fixtures and ventilation ducts.	
Clean, relight areas around all interior and exterior doors.	
Clean both sides of glass skylights over all exterior doors.	
Wash all wastebaskets.	

QUARTERLY SERVICES

3-Month Period: _____

I. Administration/5th Floor

Dust or vacuum all ventilating and air conditioning outlets.	
Clean and polish metal thresholds.	
Polish bright metal and woodwork	
Clean carpets with extractor.	
Change air freshener in restrooms.	

Frequency Schedule – Keizer Facility

FREQUENCY SCHEDULE

The following schedule of daily, weekly, monthly, quarterly, and semi-annual janitorial services is provided to identify work to be accomplished on a regular and on-going basis. Janitorial personnel will review this schedule daily and mark each activity as the services are completed.

DAILY SERVICES

I. KTC

A. Restrooms (4)

	Mon	Tue	Wed	Thu	Fri
Sweep, wet-mop, or scrub floors with disinfectant.					
Wash and sanitize water closets, urinals and wash basins (maintain traps odor-free).					
Damp wipe and polish mirrors, dispensers and chrome fixtures.					
Damp wipe and polish all other surfaces (walls, doors, partitions).					
Empty and wipe clean waste receptacles. Replace plastic liners.					
Service toilet tissue, seat cover, paper towel, sanitary napkin/tampon, and soap dispensers.					
Replace burned-out light bulbs.					

B. Office Area, Conference Rooms, and Storerooms.

	Mon	Tue	Wed	Thu	Fri
Vacuum all carpeted floors.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Dust all horizontal surfaces including furniture, desks, filing cabinets, wall cabinets, window ledges, baseboards, chair rails, etc. NOTE – do not disturb materials left on surfaces to be cleaned.					
Replace burned-out light bulbs.					

C. Lobby.

	Mon	*Tue*	*Wed*	*Thu*	*Fri*
Sweep and Mop floors.					
Empty and wipe clean waste receptacles, replace plastic liners as needed.					
Spot clean vertical surfaces (doors, walls, windows, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					
Wash and sanitize drinking fountain.					
Replace burned-out light bulbs.					

D. Lunchroom

	Mon	Tue	Wed	Thu	Fri
Sweep floor and wet mop floors with mild detergent.					
Empty and wipe clean waste receptacles. Replace plastic liners in waste receptacles.					
Wipe clean all other surfaces (walls, tables, counters, doors, exterior of all appliances) and dust horizontal surfaces.					
Neatly arrange and/or put books and magazines in designated area.					
Wash and sanitize sink.					
Replace burned out light bulbs.					

E. Hallways.

	Mon	Tue	Wed	Thu	Fri
Vacuum carpeted floors.					
Spot clean vertical surfaces (doors, walls, etc.).					
Wash interior and exterior glass on main entry door. Wipe door handles.					

WEEKLY SERVICES

I. KTC

	Week 1	Week 2	Week 3	Week 4	Week 5
Scrub and disinfect floors in restrooms, and lunchroom.					
Wipe door frames, window frames and venetian blinds with treated dust cloths.					
Clean interior and exterior of glass on all interior and exterior doors.					
Clean telephones.					
Remove smudges and fingermarks from doors and adjacent areas, woodwork, walls, and light switches.					
Wash counter tops and tabletops with neutral soap and water.					
Janitor closet floor, sink and walls cleaned.					

MONTHLY SERVICES

Month: _____

I. KTC

Spray buff or seal tile floors after washing and disinfecting.	
Scrub wall surfaces, partitions, doors, sills, and waste receptacles in restrooms.	
Dust wall surfaces within 84" of floor and under surfaces such as knee wells on desks, table legs, etc.	
Clean plastic upholstered furniture and spot clean upholstered furniture.	
Clean kick plates, push plates and door handles from entrance doors, and remove oil, grease, mold, etc. from around latches, hinges and frame.	
Clean exterior of all light fixtures and ventilation ducts.	
Clean, relight areas around all interior and exterior doors.	
Wash all wastebaskets.	

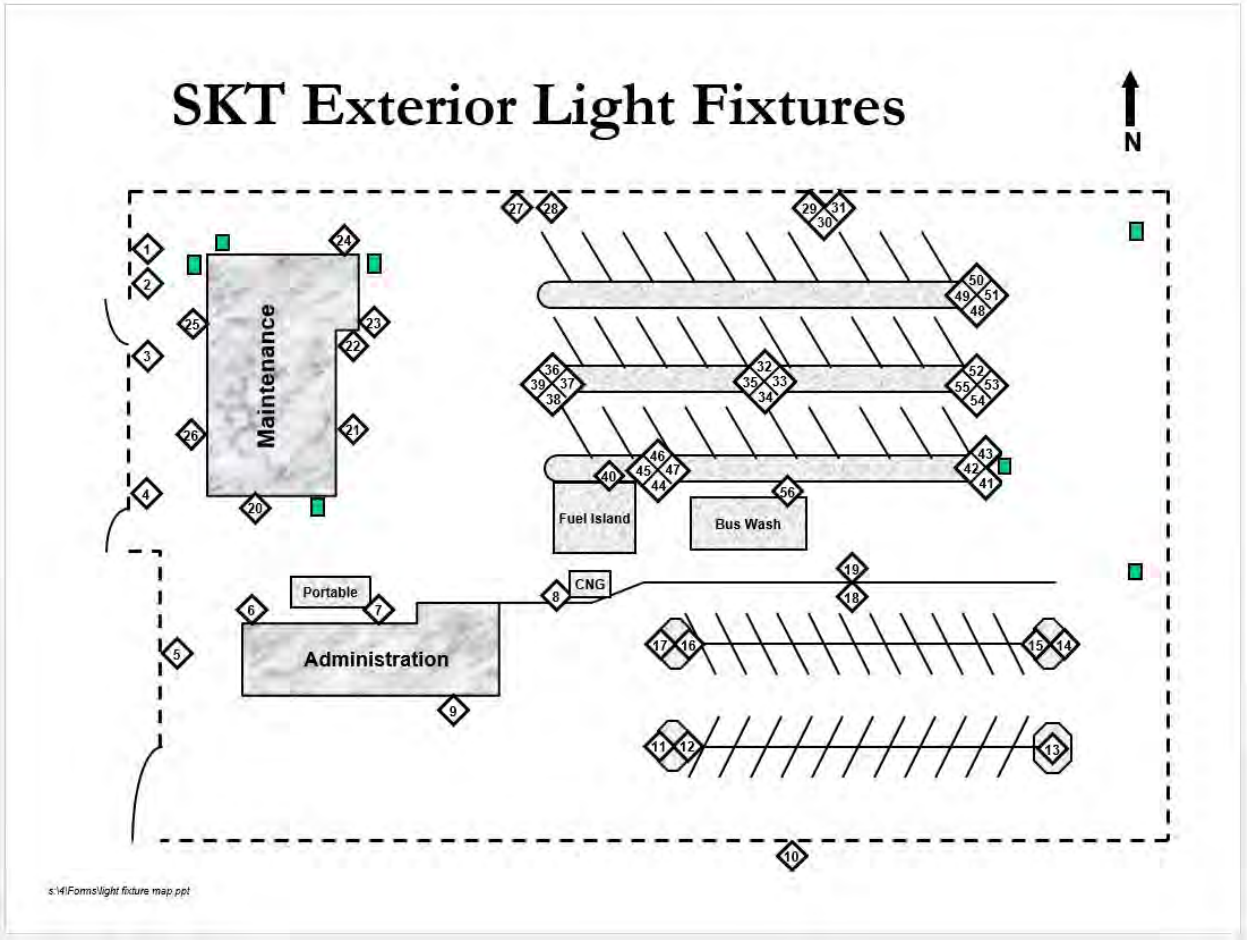
QUARTERLY SERVICES

3-Month Period: _____

I. KTC

Dust or vacuum all ventilating and air conditioning outlets.	
Clean and polish metal thresholds.	
Polish bright metal and woodwork.	
Change air freshener in restrooms.	
Clean carpets with extractor.	

APPENDIX C
Exterior Light Fixtures



APPENDIX D
Spill Kit Inspection Form

Spill Kit Inspection Form
Room:

PI/Supervisor/Program Name:

Indicate if the item is present with a check mark. If the item is not functional or not present, replace it. When finished, date and sign to indicate the inspection was complete.

	Date									
Item										
Disposable nitrile gloves										
Chemical resistant gloves										
Spill X-Acid										
Spill X-Caustic										
Spill X-Solvent										
Ziploc bags										
Indelible marker										
Bench broom or scraper										
Dustpan										
Safety glasses										

If items are missing, are broken, or need to be added to the inventory due to changes in room use, indicate this in the comments section:

Name	Date	Comment

APPENDIX E
Bus Wash Maintenance Checklist

Cherriots
SALEM-KEIZER TRANSIT

Westmatic Maintenance Checklist for Brush Drive-Through Transit Master

	MAINTENANCE ITEM	WEEKLY	MONTHLY	EVERY 6 MONTHS	ANNUALLY
1	Inspect plumbing for leaks	X			
2	Check spray patterns / plugged nozzles	X			
3	Basic check for damage	X			
4	Brushes: Damage / Contamination / Hanging Straight	X			
5	Check chemical levels	X			
6	Ozone generator operation (green light)	X			
7	Ro system check	X			
8	Clean filter	X			
9	Clean electric eye lenses	X			
10	Check side brush wagon operation	X			
11	Check / clean detergent pump(s) inlet basket strainer	X			
12	Check HP diverter valve operation (Pneumatic ball valves)	X			
13	Check side brush belts (tension / wear and cracks)		X		
14	Check side brush rubber flex couplings for damage		X		
15	Check all gear boxes for leaks		X		
16	Grease top section pillow block bearings		X		
17	Check side brush wagon operation		X		
18	Check all electrical boxes for leaks / moisture		X		
19	Check and tighten all nuts / bolts			X	
20	Clean out sump pits			X	
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

APPENDIX F
CNG Fueling Station Maintenance Schedule

SKT CNG FUELING STATION
MANUFACTURER'S RECOMMENDED MAINTENANCE SCHEDULE

	MAINTENANCE ITEM	EVERY 2 WEEKS	EVERY 500 HRS	EVERY 1000 HRS	EVERY 2000 HRS	EVERY 5000 HRS
1	Check/record compressor inlet pressure	X				
2	Check/record interstage pressures and temps and compare with design	X				
3	Check/record oil pressure and coolant temps	X				
4	Visually inspect compressor hoses, tubing and piping for leaks and abnormalities	X				
5	Visually inspect panels for leaks and abnormalities	X				
6	Check the priority panel for proper operation	X				
7	Check all regulator settings	X				
8	Check oil level in all equipment	X				
9	Check all coolant levels	X				
10	Check coolant pump	X				
11	Check belt tension and alignment	X				
12	Drain oil/condensate from scrubbers and filters	X				
13	Drain oil/condensate from recovery tank, vent header and storage vessels	X				
14	Change oil and filter (non-synthetic)		X			
15	Snoop test all piping/tubing/hoses for leaks		or 6 months			
16	Check and tighten all electrical connections		or 6 months			
17	Check and tighten all compressor skid anchor bolts		or 6 months			
18	Change inlet and discharge filter elements, check filter contents			or annually		
19	Check set points of all instrumentation (pressure and temp gauges, oil level switch , etc) test all shutdowns			X		
20	Check that recovery tank drains slowly to inlet to inlet pressure on startup			X		
21	Check water/glycol mixture of all cooling systems and adjust if necessary to 50/50 mixture - Check and adjust coolant pH.			or annually		
22	Change oil and filter (synthetic)				X	
23	Check and clean compressor valves - repair as necessary				X	
24	Change dispenser filter elements				X	
25	Lubricate main drive motor bearings				X	
26	Inspect connecting rod journal bearings					X
27	Check valves, rod packing and piston rings - replace as needed					X
28	Retest all relief valves					5 yrs.
29	Flush cooling system, refill with fresh coolant					2 yrs.
30	Tank inspection storage buffer					3 yrs.

APPENDIX G
Mobile Vehicle Lifts Daily Checklist

SLEC
heavy duty lifts

Daily Check list for SEFAC Mobile Vehicle Lifts

Component To be checked	*Inspection*	*Control means*	*Corrective measure*	*OK*	*NO*
Cables (Power & interconnecting)	Inspect for damage	Visual	replace		
Plug	Check for damage	Visual	replace		
Limit Switch	Check for damage	Manual activation	replace		
Protection Band	Tension	Manual & visual	replace		

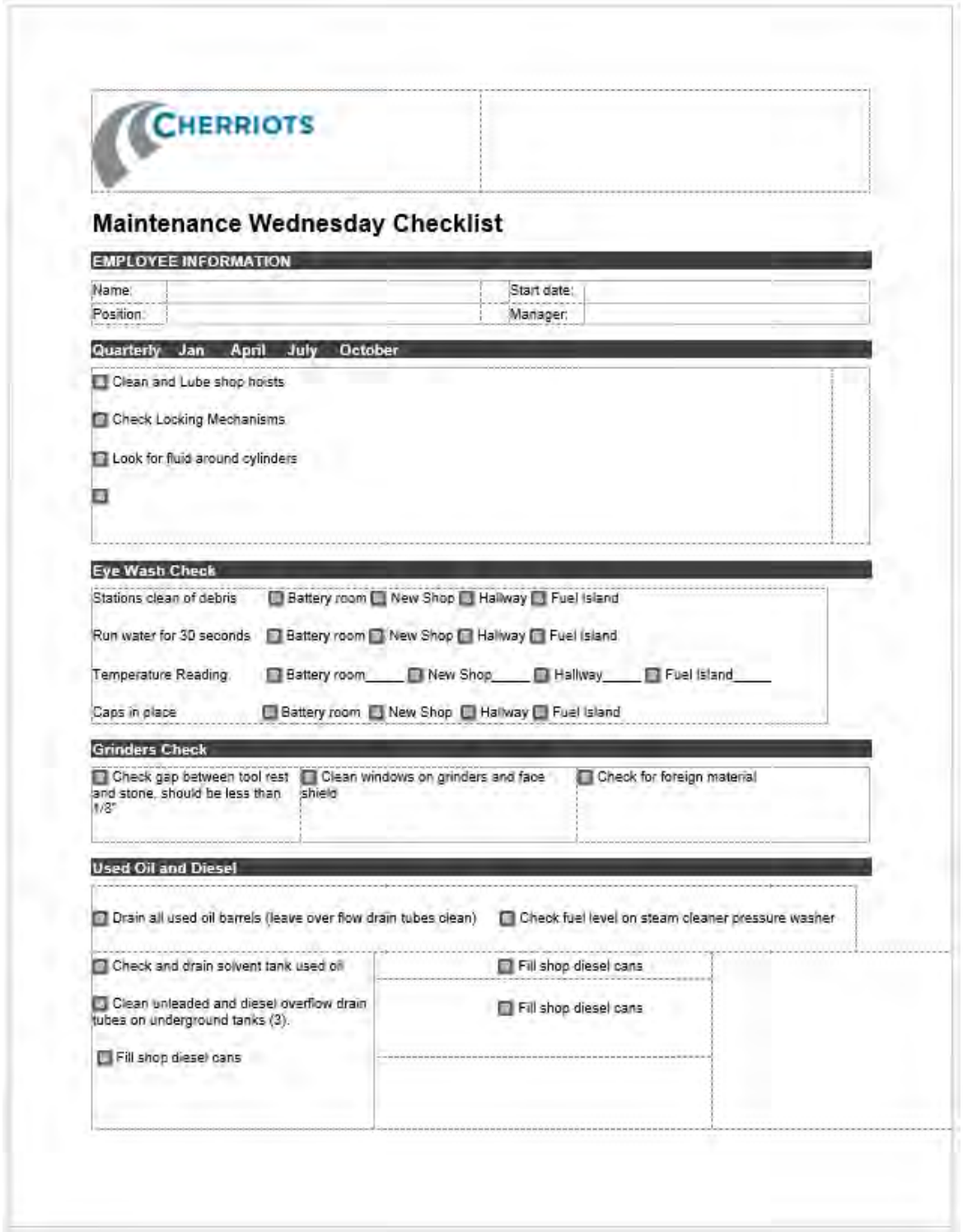
SLEC, Inc. | 23 Fontana Lane, Suite 109 | Baltimore, MD 21237
Ph: 443.730.1023 | Fax: 443.730.1026 | slec@slec.com
www.slec.com

APPENDIX H
Air Compressor Maintenance Schedule

SKT AIR COMPRESSOR
MANUFACTURER'S RECOMMENDED MAINTENANCE SCHEDULE

	MAINTENANCE ITEM	WEEKLY	ANNUALLY
	Air Compressors - 3 Total: 2 in Oil Room (East / West) & 1 in Fuel Island		
1	Check Oil Level	X	
2	Check automatic drain operation	X	
3	Check belt tension & condition 3/8 - 1/2 Deflectron	X	
4	Change Oil		X
5	Change or clean air filters		X
6	Check for loose bolts		X
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

APPENDIX I
Maintenance Wednesday Checklist



CHERRIOTS

Maintenance Wednesday Checklist

EMPLOYEE INFORMATION

Name:		Start date:	
Position:		Manager:	

Quarterly Jan April July October

- ☐ Clean and Lube shop hoists
- ☐ Check Locking Mechanisms
- ☐ Look for fluid around cylinders
- ☐

Eye Wash Check

Stations clean of debris	☐ Battery room	☐ New Shop	☐ Hallway	☐ Fuel Island	
Run water for 30 seconds	☐ Battery room	☐ New Shop	☐ Hallway	☐ Fuel Island	
Temperature Reading	☐ Battery room_____	☐ New Shop_____	☐ Hallway_____	☐ Fuel Island_____	
Caps in place	☐ Battery room	☐ New Shop	☐ Hallway	☐ Fuel Island	

Grinders Check

☐ Check gap between tool rest and stone, should be less than 1/8"	☐ Clean windows on grinders and face shield	☐ Check for foreign material

Used Oil and Diesel

- ☐ Drain all used oil barrels (leave over flow drain tubes clean)
- ☐ Check fuel level on steam cleaner pressure washer

☐ Check and drain solvent tank used oil	☐ Fill shop diesel cans	
☐ Clean unleaded and diesel overflow drain tubes on underground tanks (3).	☐ Fill shop diesel cans	
☐ Fill shop diesel cans		

First Wednesday of every month

- [ ] Lubricate steam bay lift (26 grease fitting)
- [ ] Dip all fuel tanks and record
- [ ] Look for fluid around cylinders
- [ ]

Tire Cage Monthly

- [ ] Safety Warning Labels are installed and legible
- [ ] The air hose for inflation of the tire is at least 24 inches long and equipped with a clip on chuck.
- [ ] The sir hose for inflation of the tire has an in line shut off valve, regulator and gauge
- [ ] The Safety Cage displays no damage(Bent, Cracked, altered in any way)
- [ ]

APPENDIX J
Floor Scrubber Maintenance Checklist

Tennant 465 Floor Scrubber

Date: _____ Name: _____

Daily

1) Squeegee	Check for damage and wear	_____
2) Scrub brushes	Check for damage and wear	_____
3) Recovery tank	Clean and Backflush Squeegee Suction hose	_____

Monthly

1) Scrub Head Floor Skirts	Check for damage and wear	_____
2) Squeegee	Check deflection	_____
3) Front tires	Check air pressure	_____

Quarterly

1) Rear casters	Lubricate	_____
2) Parking brake	Check adjustment	_____
3) Wheel drive chain	Lubricate	_____
4) Scrub head side skirts	Check for adjustment	_____

Annually

1) Vacuum fan motor	Check motor brushes	_____
2) Scrub brush motor	Check motor brushes	_____
3) Propelling motor	Check motor brushes	_____

As Needed

Visually inspect batteries, electrolyte level, and cables for corrosion. Clean, top off electrolyte, and service cables as required. Use appropriate personal protective equipment as required including gloves and safety glasses. Avoid contact with battery acid and clean any spills immediately.

APPENDIX K
Facilities Trucks Response Supply Checklists

TRUCK 1654

Updated: May 2017

Name: _____ **Date:** _____

☐ 1. Ck Fuel in Air Compressor
☐ 2. Ck Antifreeze Tank & Fill
☐ 3. Ck ATF Tank & Fill
☐ 4. 2 Push Brooms
☐ 5. 1 Large Pry Bar
☐ 6. 1 Flat Shovel
☐ 7. 1 Hammer Sledge
☐ 8. 2 Big Silver Shovels
☐ 9. Gray Garbage Can - sweep
☐ 10. 1 Small Broom

Top Left Compartment

☐ 1. 2 Cargo Straps - yellow
☐ 2. 2 Cargo Straps –blue
☐ 3. First Aid Kit
☐ 4. 1 Brake Clean Spray --
  ☐ 1 777 Spray
  ☐ 1 Dry Lube Spray
  ☐ 1 Pipe Sealant
  ☐ 1 Silicon Sealant
  ☐ Impact Socket 1-5/16
☐ 5. 4 Bungee Straps
☐ 6. 2 Headlights – H5062
☐ 7. 1 Module- Hamsar #45095
☐ 8. 3 Headlights H4651LL

Top Left Rear

☐ 1. Brass Fittings - assortment
☐ 2. Hose Clamps - assortment
☐ 3. Electrical & Duct Tape, Mechanic Wire, 2 Small Brushes
☐ 4. Nylon Ties – assortment
☐ 5. Absorbent Socks
☐ 6. Fuses: Standard/Mini

Side Door 1 Left

☐ 1. Safety Triangles
☐ 2. 4 Safety Cones
☐ 3. 1 Gray Air Hose
☐ 4. 1 Black Air Hose Adapter
☐ 5. 1 Air Blow Gun
☐ 6. 1 Fire Extinguisher
☐ 7. Knee Pad

Side Door 2 Left

☐ 1. Chains for Pickup Truck
☐ 2. 2 Tow Straps
☐ 3. Empty Buckets
☐ 4. 4 1-gallon Oil Cans,
  ☐ 1 ea. 15/40 CNG oil
  ☐ 2 ea. 15/40 Diesel Engine Power Steering
  ☐ 1 ea. Empty

Side Door 3 Left

☐ 1. 2 Red Creeper Pads
☐ 2. Gray & White Absorbent Pads - universal & oil type stack of each.
☐ 3. Small & Large Garbage Bags

Side Door 4 Left

☐ 1. Blocks of Wood
☐ 2. Dust Pan
☐ 3. 2 Buckets – dirty & clean absorbent

Right Side Top Flip

☐ 1. 2 Flashlights
☐ 2. 1 Chain Cutter
☐ 3. 2 Small Pry Bars
☐ 4. 1 Hacksaw
☐ 5. 1 Tape Measure
☐ 6. 1 Utility Knife
☐ 7. 2 Safety Glasses
☐ 8. Ear Protection
☐ 9. Rubber Gloves
☐ 10. Shop Towels
☐ 11. Test Light
☐ 12. Tire Gauge
☐ 13. 1/2" Air Gun - 6 bolts for axle pull
☐ 14. 2 Hammers
☐ 15. 2 Hose Crimp Tools
☐ 16. 1-1/2 Drive Flex Ratchet
☐ 17. 1 Crescent Wrench
☐ 18. 2 Vise Grips
☐ 19. 1 Channel Lock
☐ 20. 2 Cable Cutters
☐ 21. Remote Button

Right Side Top Back

☐ 1. Socket set, complete, Metric/SAE: 1/4, 3/8, 1/2
☐ 2. Ratchets, one each: 1/4, 3/8, 1/2
☐ 3. Extensions: 1-1/4, 1-1/2, 3-3/8
☐ 4. 8 Screw Drivers – 3 Philips / 5 bladed
☐ 5. 15 Bit - assorted
☐ 6. 3 Assorted Pliers
☐ 7. Impact socket set
☐ 8. ½ Drive breaker bar

Right Side Door 1

☐ 1. Check Breaker - reset if needed.

Right Side Door 2

☐ 1. 2 Plastic Drain Pan Axles
☐ 2. 4 Plastic Axle Covers
☐ 3. Jumper Cables
☐ 4. 2 Garbage Cans – cut
☐ 5. Jumper Cables- Gillig Buses

Right Side Door 3

☐ 1. Wrench Set – 9 wrenches in set, 1-1/2 – 13/16
☐ 2. Battery carrier
☐ 3. Gloves-- black

Right Side Door 4

☐ 1. Allen Wrench set, standard.
☐ 2. 8 Metric Wrenches
☐ 3. 2 Crescent Wrenches
☐ 4. 9 Standard Wrenches

☐ Start air compressor
☐ Pump each gun into tank to make sure it works
☐ Drain air tank
☐ Cycle Tommy Lift

T:4/Maintenance/GENE/1654 CHECKLIST

TRUCK TS01G

Updated: May 2017

Name: _____ **Date:** _____

☐ 1. Ck Fuel in Air Compressor
☐ 2. Ck Antifreeze Tank & Fill
☐ 3. Ck ATF Tank & Fill
☐ 4. 2 Push Brooms
☐ 5. 1 Large Pry Bar
☐ 6. 1 Flat Shovel
☐ 7. 1 Hammer Sledge
☐ 8. 1 Small Broom
☐ 9. 3 Big Safety Cones

Top Left Compartment

☐ 1. Gloves (L – XL – XXL)
☐ 2. TY - Rap
☐ 3. Hack Saw
☐ 4. Bolt Cutters
☐ 5. Battery Lifter

Top Left Rear

☐ 1. 2 Pry Bars
☐ 2. Absorbent Socks
☐ 3. 4 Bungee Straps

Side Door 1 Left

☐ 1. Fire Extinguisher
☐ 2. Knee Pad
☐ 3. 2 Head Lights H5062
☐ 4. Safety Triangles
☐ 5. First Aid Kit
☐ 6. Air Hose (Gray)

Blue Drawers

- **Drawer 1**

☐ 7. Tape Measure
☐ 8. Allen Wrench Set
☐ 9. Air Hose Adapter
☐ 10. Fuses: Standard/Mini
☐ 11. 2 Box Knifes
☐ 12. Test Light
☐ 13. Pipe Sealant
  ☐ Duct Tape
  ☐ Electrical Tape
  ☐ Mechanic Wire
  ☐ 2 Small Wire Brushes

- **Drawer 2**

☐ 14. Safety Glasses
☐ 15. Ear Plugs
☐ 16. D.R.I Module
☐ 17. Cherry Lift Headlights
  ☐ 2. 9007
  ☐ 2. 9008

Blue Drawers Cont.

- **Drawer 3**

☐ 18. Brass fittings
☐ 19. Hose Clamps

- **Drawer 4**

☐ 20. Rubber Gloves
☐ 21. Red Rags

Side Door 2 Left

☐ 1. 2 Tow Straps
☐ 2. 2 Set Tire Chains
☐ 3. 4 1-gallon Oil Cans,
  ☐ 1 ea. 15/40 CNG oil
  ☐ 1 ea. 15/40 Diesel Engine Power Steering
  ☐ 1 5w30
  ☐ 1 ATF Petro Canada
☐ 4. Empty Buckets

Side Door 3 Left

☐ 1. 2 Snow Shovels
☐ 2. Small & Large Garbage Bags
☐ 3. 2 Red Creeper Pads

Side Door 4 Left

☐ 1. Blocks of Wood
☐ 2. Dust Pan
☐ 3. 2 Buckets – dirty & clean absorbent

Right Side Top Flip

☐ 1. Wasp Killer
☐ 2. Starting Fluid
☐ 3. Silicone
☐ 4. Brake Clean
☐ 5. Penetrating Lube
☐ 6. Air Gauge
☐ 7. Air Nozzle
☐ 8. 3 Each Vise Grips
☐ 9. 2 Hose Pinch Pliers
☐ 10. Pliers
☐ 11. Side Cut
☐ 12. Channel Lock
☐ 13. Wire Cutters
☐ 14. Nut Drive Set
☐ 15. 2 Flashlights
☐ 16. 2 Hammers
☐ 17. ½ Impact Gun
☐ 18. Axle Removing Bolts
☐ 19. Remote Start Switch

Top Rear Door

☐ 1. ½ Drive Sockets: SAE & Metric Deep & Shallow Adapters
☐ 2. ½ Ratchet
☐ 3. ½ Flex Ratchet
☐ 4. 1 5'' Extension
☐ 5. 1 3'' Extension
☐ 6. 3/8 Drive Sockets: SAE & Metric Deep & Shallow
☐ 7. Ratchet, Extensions, & Adapters
☐ 8. ½ Impact Sockets
☐ 9. ¼ Socket Set
☐ 10. 8 Screw Driver Assortment
☐ 11. Square Key
☐ 12. Cart Key
☐ 13. ½ Wrench (Ratchet)
☐ 14. Bits
☐ 15. ½ Driver breaker bar

Right Side Door 1

☐ 1. Jumper Cables
☐ 2. Jumper Cables for Gilligs

Right Side Door 2

☐ 1. 2 Plastic Drain Pan Axles
☐ 2. 2 Garbage Cans – cut
☐ 3. 4 Plastic Axle Covers

Right Side Door 3

☐ 1. Metric Wrench Set 6 – 32
☐ 2. Standard Wrench Set 3/8 – 1 1/4
☐ 3. 1 15'' Crescent Wrench
☐ 4. 1 12'' Crescent Wrench
☐ 5. 1 8'' Crescent Wrench

Right Side Door 4

☐ Gray & White Absorbent Pads - universal & oil type stack each.
☐ Start air compressor
☐ Pump each gun into tank to make sure it works
☐ Drain air tank
☐ Cycle Tommy Lift

T:4/Maintenance/GENE/TS01G CHECKLIST

APPENDIX L
Transit Asset Management Targets (State of Good Repair)

SAMTD TRANSIT ASSET MANAGEMENT									01/31/17
#	Reporting Category	Asset Inventory	Detail	Type	FTA Requirement (ULB)	CPC (ULB)	Performace Measure	SAMTD Current Performance	TAM Targets
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	35 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	40 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	35 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	100%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	40 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	55%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	32 ft.	Diesel/hybrid	10 yrs or 350K miles	12 yrs	Percent met or exceeded ULB	13%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	33 ft.	Diesel	10 yrs or 350K miles	12 yrs	Percent met or exceeded ULB	13%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (CU)	22-24 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	33%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (VN)	15 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Sevice Vehicle	Utility Non-Revenue Service	Maintenance Pickups	8 yrs.	10 yrs. or 150,000 miles	Percent met or exceeded ULB	17%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Sevice Vehicle	Staff Non-Revenue Vehicles	Supervisor vehicles and pool cars	8 yrs.	8-10 yrs. or 150,000 miles	Percent met or exceeded ULB	8%	0% of fleet above CPC ULB
3	Facilities	Maintenance Operations Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Administration Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Keizer Transit Center/ Layover	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale
3	Facilities	Downtown Transit Center/ Layover	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	100%	100% at 3.0 or above on TERM scale

*Useful life benchmark detail

**FTA Transit Economic Requirements Model Benchmark - Ratings below 3.0 for conditions

Equipment Benchmark - Age

Rolling Stock Benchmark - Age

Facilities Benchmark - Condition

Infrastructure Benchmark - Performance

APPENDIX M
Building Envelope Quarterly Checklist

Building Envelope Quarterly Checklist

Items to be Inspected/serviced quarterly

Activity	Issue?	Completion Date
KTC Roof. Inspect roof, irrigation systems gutters and overhangs for possible leaks or damage. Roof ladder secure. No moss visable.Quarterly		
Del Webb Admin Roof- Inspect for any signs of leaks or damage Roof ladder secure. Roof ladder secure. No moss visable-Quarterly **Del Webb Maintenance Roof**- Inspect for any signs of leaks or damage. Roof ladder secure. No moss visable-Quarterly		
Del Webb Garage Doors. No unusual noises?		
Door Operator functioning and serviced (Lubed and adjusted)		
Rollers and tracks lubricated No unusual signs of wear on panels or glass		

APPENDIX 4 – TAM TARGETS

SAMTD TRANSIT ASSET MANAGEMENT TARGETS

January 2017

#	Reporting Category	Asset Inventory	Detail	Type	FTA Requirement (ULB)	CPC (ULB)	Performance Measure	SAMTD Current Performance	TAM Targets
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	(18) - 35 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	(12) - 40 ft.	Diesel	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	0%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	(12) - 35 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	100%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Fixed Route Bus (BU)	(22) - 40 ft.	CNG	12 yrs or 500K miles	15 yrs	Percent met or exceeded ULB	55%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	(5) - 24 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	40%	0% of fleet above CPC ULB
1	Rolling Stock/ Rural	Fixed Route Bus (BU)	(10) - 32 ft.	Diesel/Hybrid	10 yrs or 350K miles	12 yrs	Percent met or exceeded ULB	40%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (CU)	(48) - 22-24 ft.	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	33%	0% of fleet above CPC ULB
1	Rolling Stock/ Urban	Paratransit Service (VN)	(10) - 14 ft	Gas	5 yrs or 150K miles	8 yrs	Percent met or exceeded ULB	10%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Service Vehicle	Utility Non-Revenue Service	Maintenance Pickups	8 yrs.	10 yrs. or 150,000 miles	Percent met or exceeded ULB	17%	0% of fleet above CPC ULB
2	Equipment	Non-Revenue Service Vehicle	Staff Non-Revenue Vehicles	Supervisor vehicles and patrol cars	8 yrs.	8-10 yrs or 150,000 miles	Percent met or exceeded ULB	8%	0% of fleet above CPC ULB
3	Facilities	Maintenance Operations Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	0%	0% below 3.0 on TERM scale
3	Facilities	Administration Facilities	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	0%	0% below 3.0 on TERM scale
3	Facilities	Kaiser Transit Center/ Layover	All systems and components	SAMTD-Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	0%	0% below 3.0 on TERM scale
3	Facilities	Downtown Transit Center/ Layover	All systems and components	SAMTD Owned Facilities	NA	Defined by FTA	% rated below 3 on the TERM scale	0%	0% below 3.0 on TERM scale

(Click to expand)

APPENDIX 5: KEY DEFINITIONS

Cherriots Salem Area Mass Transit District

ADA: Americans with disabilities act

AIM: ASSET INVENTORY MODULE

AST: ABOVE GROUND STORAGE TANK

BMD: BUS MAINTENANCE DIRECTIVE

CAAA: CLEAN AIR ACT AMENDMENTS

CBM: CONDITION BASED MAINTENANCE

CIP: CAPITAL IMPROVEMENT PLAN

CAD/AVL: Computer Aided Dispatch (CAD) and Automated Vehicle Location (AVL)

DEF: DIESEL EXHAUST FLUID

DVIR: DRIVER VEHICLE INSPECTION REPORT

EAMS: ENTERPRISE ASSET MANAGEMENT SYSTEM

EPA: ENVIRONMENTAL PROTECTION AGENCY

FMP: Fleet and Facilities Maintenance Plans

FTA: FEDERAL TRANSIT ADMINISTRATION

FY: FISCAL YEAR

HVAC: HEATING VENTILATION AND AIR CONDITIONING

Lifecycle: The time interval that begins with the acquisition of a Transit Asset or Land Asset, and ends with the disposal of the Transit Asset or Land Asset. Lifecycle phases may include Planning, design, procurement, construction, operations, maintenance, rehabilitation, and asset replacement/disposal.

Lifecycle Management Plan (LMP): A department/mode-specific TAM Plan. An LMP describes performance measures and targets aligned with the commitments established in the TAM Plan, strategies for delivering these performance targets, and other mode/department-specific approaches to continually improve management of its Transit Assets and Land Assets over their lifecycle. LMP's should be collected, coordinated and integrated into the TAM Plan each year for the review in coordination with the agency Safety Plan.

NTD: NATIONAL TRANSIT DATABASE

PDM: PREDICTIVE MAINTENANCE

PM: PREVENTATIVE MAINTENANCE

OEM: ORIGINAL EQUIPMENT MANUFACTURER

RCRA: RESOURCE CONSERVATION AND RECOVERY ACT

SDS: SAFETY DATA SHEETS

SGR: STATE OF GOOD REPAIR

SRTP: SHORT RANGE TRANSIT PLAN

SOP: STANDARD OPERATING PROCEDURE

Transit Asset or Transit Capital Asset: A subset of the term "Asset." A depreciable physical Asset required to support transit service either directly or indirectly, including vehicles, stations, facilities, guideway and systems Assets, whether mobile or fixed. Cherriots' definition of Transit Asset can be aligned to the asset categories defined by 49 U.S.C. Chapter 53 for a Capital Asset as "a unit of rolling stock, a facility, a unit of equipment [that is nonexpendable, tangible property with a useful life of at least one year], or an element of infrastructure used for providing public transportation." Transit Assets do not include land, spare parts, or office furniture. *See definitions of Asset, Land Asset, and Safety-Critical Asset for disambiguation.*

Safety-Critical Asset: A transit asset, sub-system, or component whose failure (at the end of its useful life?) may cause serious injury or death to human beings, loss or severe damage to property, or environmental harm. Criticality will be calculated using the capital investment prioritization scores used by TERM Lite by Transit Asset type. A Safety-Critical Asset must be given a TERM Lite safety score of "4" or higher. *See definitions of Asset, Land Asset, and Transit Asset for disambiguation.*

Asset Owner: Generally refers to the agency staff or department responsible for the inspection and/or maintenance phase of a Transit Asset's or Land Asset's lifecycle. For non-revenue vehicles allocated to a mode, the Asset Owner will be the agency staff or department dependent upon these Transit Assets. How about systems assets? Or some facilities assets (storm water for example)

State Of Good Repair (SGR): Defined by 49 U.S.C. Chapter 53 as the "condition in which a [transit asset or] capital asset is able to [safely] operate at a full level of performance." The State of Good Repair is further defined by an asset's Useful Life Benchmark (for rolling stock and equipment) or physical condition (for facilities). Assets are considered in a State of Good Repair when they do not meet or exceed their ULB or physical condition threshold. Vehicle and equipment assets, for example, are considered in a State of Good Repair, when rated as a 2.5 or above on Cherriots' TERM Lite scale, where 2.5 is equivalent to the ULB set for an asset class. Additionally, facilities, are considered in a State of Good Repair when rated as a 3 or above on FTA's TERM scale. *Also see definition for Useful Life Benchmark.*

TERM Scale: The five category rating system used in the FTA's TERM Model to describe the condition of an asset, where 5 is excellent condition and 1 is poor condition.

TERM Lite: TERM (Transit Economic Requirements Model) Lite is an MS Access-based decision tool provided by the FTA for estimating SGR Backlog, annual capital investment needs, current and future asset conditions, and capital investment priorities over a 20 to 30 year time horizon. TERM Lite produces these analyses for Cherriots based on the most complete and comprehensive Transit Asset inventory to-date.

Tier 2 Transit Provider: An entity that receives Federal financial assistance under 49 U.S.C. Chapter 53, either directly from FTA or as a subrecipient, that owns, operates, or manages 100 or fewer vehicles in revenue service during peak regular service across all non-rail fixed route modes or, in any one non-fixed route mode," Or, Is a subrecipient under the 5311 Rural Area Formula Program," Or, "Is any American Indian tribe."

Transit Asset Management (TAM): Defined by 49 U.S.C. Chapter 53 as "the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation."

Transit Asset Management Plan (TAM Plan): This document, which describes: the capital asset inventory; condition of inventoried assets; TAM performance measures, targets, and prioritization of investments aligned with the agency's TAM and SGR policy, strategic goals and objectives; as well as the strategies, activities, and resources required for delivering this Plan (including decision support tools and processes); and other agency-wide approaches to continually improve TAM practices. While this TAM Plan exists as a standalone document, LMPs may be considered an extension of the TAM Plan by reference.

Useful Life

Defined by 49 U.S.C. Chapter 53 as "either the expected life cycle of a capital asset or the acceptable period of use in service determined by FTA." It generally defines the minimum eligibility for retirement, replacement, or disposal of an asset.

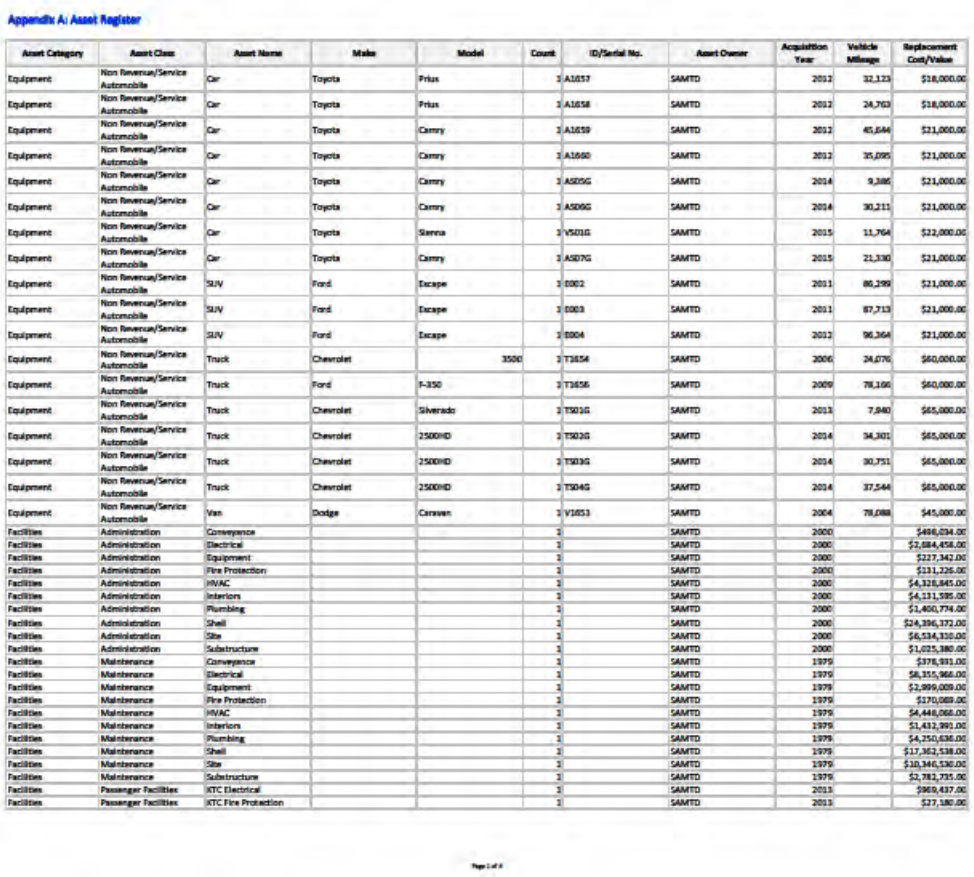
Useful Life Benchmark (ULB)

Defined by 49 U.S.C. Chapter 53 as "the expected life cycle or the acceptable period of use in service for a capital asset, as determined by a transit provider, or the default benchmark provided by FTA." The ULB is the realistic expectation for when an asset would be disposed or replaced based on operating environment and procurement timelines. It is not the same as "Useful Life" in FTA grant programs, is reported by age (in years), and usually only pertains to rolling stock or equipment. It is a single number shared for or within specified asset classes, although may vary across different asset classes and providers.

UPS: UNINTERRUPTED POWER SUPPLY

UST: UNDERGROUND STORAGE TANK

APPENDIX A – ASSET REGISTER



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	Car	Toyota	Prius	1	A1657	SAMTD	2012	32,123	$18,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Prius	1	A1658	SAMTD	2012	24,763	$18,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Camry	1	A1659	SAMTD	2012	45,644	$21,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Camry	1	A1660	SAMTD	2012	35,095	$21,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Camry	1	A505G	SAMTD	2014	9,386	$21,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Camry	1	A506G	SAMTD	2014	30,211	$21,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Sienna	1	V501G	SAMTD	2015	11,764	$22,000.00
Equipment	Non Revenue/Service Automobile	Car	Toyota	Camry	1	A507G	SAMTD	2015	21,330	$21,000.00
Equipment	Non Revenue/Service Automobile	SUV	Ford	Escape	1	0002	SAMTD	2011	80,299	$21,000.00
Equipment	Non Revenue/Service Automobile	SUV	Ford	Escape	1	0003	SAMTD	2011	87,713	$21,000.00
Equipment	Non Revenue/Service Automobile	SUV	Ford	Escape	1	0004	SAMTD	2012	96,364	$21,000.00
Equipment	Non Revenue/Service Automobile	Truck	Chevrolet	3500	1	T1654	SAMTD	2006	24,076	$60,000.00
Equipment	Non Revenue/Service Automobile	Truck	Ford	F-350	1	T1656	SAMTD	2009	78,166	$60,000.00
Equipment	Non Revenue/Service Automobile	Truck	Chevrolet	Silverado	1	T501G	SAMTD	2013	7,940	$65,000.00
Equipment	Non Revenue/Service Automobile	Truck	Chevrolet	2500HD	1	T502G	SAMTD	2014	34,301	$65,000.00
Equipment	Non Revenue/Service Automobile	Truck	Chevrolet	2500HD	1	T503G	SAMTD	2014	30,751	$65,000.00
Equipment	Non Revenue/Service Automobile	Truck	Chevrolet	2500HD	1	T504G	SAMTD	2014	37,544	$65,000.00
Equipment	Non Revenue/Service Automobile	Van	Dodge	Caravan	1	V1653	SAMTD	2004	78,088	$45,000.00
Facilities	Administration	Conveyance			1		SAMTD	2000		$498,034.00
Facilities	Administration	Electrical			1		SAMTD	2000		$2,084,458.00
Facilities	Administration	Equipment			1		SAMTD	2000		$227,342.00
Facilities	Administration	Fire Protection			1		SAMTD	2000		$131,226.00
Facilities	Administration	HVAC			1		SAMTD	2000		$4,328,845.00
Facilities	Administration	Interiors			1		SAMTD	2000		$4,131,595.00
Facilities	Administration	Plumbing			1		SAMTD	2000		$1,400,774.00
Facilities	Administration	Shell			1		SAMTD	2000		$24,396,372.00
Facilities	Administration	Site			1		SAMTD	2000		$6,534,310.00
Facilities	Administration	Substructure			1		SAMTD	2000		$1,025,380.00
Facilities	Maintenance	Conveyance			1		SAMTD	1979		$378,931.00
Facilities	Maintenance	Electrical			1		SAMTD	1979		$8,355,966.00
Facilities	Maintenance	Equipment			1		SAMTD	1979		$2,999,009.00
Facilities	Maintenance	Fire Protection			1		SAMTD	1979		$170,069.00
Facilities	Maintenance	HVAC			1		SAMTD	1979		$4,448,066.00
Facilities	Maintenance	Interiors			1		SAMTD	1979		$1,412,991.00
Facilities	Maintenance	Plumbing			1		SAMTD	1979		$4,250,636.00
Facilities	Maintenance	Shell			1		SAMTD	1979		$17,362,538.00
Facilities	Maintenance	Site			1		SAMTD	1979		$10,346,536.00
Facilities	Maintenance	Substructure			1		SAMTD	1979		$2,782,735.00
Facilities	Passenger Facilities	KTC Electrical			1		SAMTD	2013		$969,437.00
Facilities	Passenger Facilities	KTC Fire Protection			1		SAMTD	2013		$27,180.00

(Click to expand)

APPENDIX B1 – REVENUE VEHICLE CONDITION

Appendix B: Asset Condition Data

B1: Revenue Vehicle Assets

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
RevenueVehicles	BU - Bus	Bus	1	329 (357)	12	373,450	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	358	8	316,692	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	359	8	266,400	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	360	8	263,804	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	361		4,185	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	362		2,979	$219,000.00	15	No
RevenueVehicles	BU - Bus	Bus	1	363		4,408	$219,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1801	1000	1,100	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	107	16	522,633	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	108	16	536,835	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	109	16	535,058	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	110	16	535,833	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	111	16	546,563	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	112	16	544,183	$519,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	204	16	509,112	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	205	16	513,965	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	206	16	507,136	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	207	16	501,118	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	208	16	492,777	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	209	16	495,404	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	210	16	512,791	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	211	16	511,485	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	212	16	514,195	$523,000.00	15	Yes
RevenueVehicles	BU - Bus	CNG Bus	1	213	14	523,348	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	214	14	502,902	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	218	13	456,031	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	219	13	464,317	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	220	13	454,716	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	221	13	437,732	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	222	13	439,584	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1802		1,100	$519,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1803		1,100	$519,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1804		1,100	$519,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1805		1,100	$519,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1806		1,100	$519,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1851		1,100	$523,000.00	15	No
RevenueVehicles	BU - Bus	CNG Bus	1	1852		1,100	$523,000.00	15	No

(Click to expand)

APPENDIX B2 – EQUIPMENT CONDITION

Appendix B: Asset Condition Data

B2: Equipment Assets

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	Car	1	A1657	6	32,123	$18,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	A1658	6	24,763	$18,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	A1659	6	45,644	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	A1660	6	35,095	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	AS05G	4	9,386	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	AS06G	4	30,211	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	V501G	3	11,764	$22,000.00	10	No
Equipment	Non Revenue/Service Automobile	Car	1	AS07G	3	21,330	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	SUV	1	E002	7	86,299	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	SUV	1	E003	7	87,713	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	SUV	1	E004	6	96,364	$21,000.00	10	No
Equipment	Non Revenue/Service Automobile	Truck	1	T1654	12	24,076	$60,000.00	10	Yes
Equipment	Non Revenue/Service Automobile	Truck	1	T1656	9	78,166	$60,000.00	10	No
Equipment	Non Revenue/Service Automobile	Truck	1	T501G	5	7,940	$65,000.00	10	No
Equipment	Non Revenue/Service Automobile	Truck	1	T502G	4	34,301	$65,000.00	10	No
Equipment	Non Revenue/Service Automobile	Truck	1	T503G	4	30,751	$65,000.00	10	No
Equipment	Non Revenue/Service Automobile	Truck	1	T504G	4	37,544	$65,000.00	10	No
Equipment	Non Revenue/Service Automobile	Van	1	V1653	14	78,088	$45,000.00	10	Yes

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(Click to expand)

APPENDIX B3 - FACILITIES CONDITION

Appendix B: Asset Condition Data

B3: Facilities Assets

Asset Category	Asset Class	Asset Name	Count	ID/Serial No.	Age (Yrs)	TERM Scale Condition	Replacement Cost/Value
Facilities	Administration	Conveyance	1		18	3	$498,034.00
Facilities	Administration	Electrical	1		18	3	$2,684,458.00
Facilities	Administration	Equipment	1		18	3	$227,342.00
Facilities	Administration	Fire Protection	1		18	4	$131,226.00
Facilities	Administration	HVAC	1		18	3	$4,328,845.00
Facilities	Administration	Interiors	1		18	3	$4,131,595.00
Facilities	Administration	Plumbing	1		18	4	$1,400,774.00
Facilities	Administration	Shell	1		18	4	$24,396,372.00
Facilities	Administration	Site	1		18	3	$6,534,310.00
Facilities	Administration	Substructure	1		18	4	$1,025,380.00
Facilities	Maintenance	Conveyance	1		39	3	$378,931.00
Facilities	Maintenance	Electrical	1		39	3	$8,355,966.00
Facilities	Maintenance	Equipment	1		39	3	$2,999,009.00
Facilities	Maintenance	Fire Protection	1		39	3	$170,069.00
Facilities	Maintenance	HVAC	1		39	3	$4,448,066.00
Facilities	Maintenance	Interiors	1		39	3	$1,432,991.00
Facilities	Maintenance	Plumbing	1		39	3	$4,250,636.00
Facilities	Maintenance	Shell	1		39	3	$17,362,538.00
Facilities	Maintenance	Site	1		39	3	$10,346,530.00
Facilities	Maintenance	Substructure	1		39	4	$2,782,735.00
Facilities	Passenger Facilities	KTC Electrical	1		5	4	$969,437.00
Facilities	Passenger Facilities	KTC Fire Protection	1		5	4	$27,180.00
Facilities	Passenger Facilities	KTC HVAC	1		5	3	$1,424,080.00
Facilities	Passenger Facilities	KTC Interiors	1		5	3	$480,796.00
Facilities	Passenger Facilities	KTC Plumbing	1		5	4	$506,610.00
Facilities	Passenger Facilities	KTC Shell	1		5	4	$2,102,358.00
Facilities	Passenger Facilities	KTC Site	1		5	4	$4,028,778.00
Facilities	Passenger Facilities	KTC Substructure	1		5	4	$120,239.00

(Click to expand)

APPENDIX C - PROJECT LIST

Appendix C: Proposed Investment Project List

Project Year	Project Name	Asset/Asset Class	Cost	Priority
2019	ITS Phase 4	Equipment	$1,458,171.00	High
2019	Back-up Storage	Equipment	$100,000.00	High
2019	Facilities Camera Replacement	Equipment	$111,000.00	High
2019	Electric Vehicle Stations	Equipment	$22,740.00	High
2019	Bus Stop Improvement Program	Equipment	$1,186,711.00	High
2019	Transit Signal Priority	Equipment	$515,420.00	High
2019	South Salem Transit Center	Facilities	$2,156,382.00	High
2019	DW Server Room Remodel	Facilities	$29,000.00	High
2019	KTC Intersection Signalization	Equipment	$1,537,886.00	High
2019	South Salem Transit Center Phase 2	Facilities	$1,625,029.00	High
2019	POS Customer Service Software	Equipment	$20,000.00	High
2019	Finance/HR Software Implementation	Equipment	$218,200.00	High
2019	In-ground Lifts	Equipment	$258,848.00	High
2019	DW Exterior Lighting	Equipment	$72,000.00	High
2019	Post Lift Replacement 2	Equipment	$11,000.00	High
2019	Bus Wash Roof Repair	Facilities	$10,500.00	High
2019	Tire Bay Concrete	Facilities	$10,000.00	High
2019	Maintenance Wash Basin Repair/Replace	Equipment	$6,300.00	High
2019	DTC Restroom Remodel	Facilities	$45,000.00	High
2019	DW Power Generator	Equipment	$300,000.00	High
2019	DW Camera Replacement	Equipment	$71,000.00	High
2019	Parts Room Cabinets 2	Equipment	$16,000.00	High
2019	Heated Pressure Washer Replacement	Equipment	$6,000.00	High
2019	Shop Welder	Equipment	$7,000.00	High
2019	Back Up Diesel Pump Generator	Equipment	$10,000.00	High
2019	Floor Scrubber	Equipment	$9,000.00	High
2019	CNG Dryer	Equipment	$28,000.00	High
2019	Cherriots Revenue Vehicle Replacement 14	RevenueVehicles	$9,299,000.00	High
2019	Cherriots LIFT Vehicle Replacement 3	RevenueVehicles	$540,000.00	High
2019	CNG Vehicle Tank Replacements	RevenueVehicles	$45,555.00	High
2019	CH2 Fire Alarm System Upgrade	Equipment	$50,000.00	High
2019	DW Overhead Fluid System	Equipment	$80,000.00	High
2019	DW Irrigation Project	Equipment	$72,657.00	High
2019	Incident Reporting Software	Equipment	$50,000.00	High
2019	CH2 Security Cameras	Equipment	$45,000.00	High
2019	DW Fence Upgrade	Equipment	$87,000.00	High
2019	Visitor Intercom System	Equipment	$32,000.00	High

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APPENDIX D – REVENUE FLEET REPLACEMENT SCHEDULE

CHERRIOTS VEHICLE REPLACEMENT

CHERRIOTS REQUIREMENTS - ACTIVE FLEET

FLEET NBR	FY BUILT	BUS LENGTH	FLEET SIZE	FUEL TYPE	BUS MAKE & DESCRIPTION	AGE END FY 2019	REPLACE BY END FY	CURRENT	2019	2020	2021	2022	2023
101-112	2002	35	12	CNG	Orion 7	17	2017	12	6	0	0	0	0
201-212	2002	40	12	CNG	Orion 7	17	2017	12	6	0	0	0	0
213,214	2004	40	2	CNG	Orion 7	15	2019	2	2	0	0	0	0
115,122	2005	40	8	BD	Gillig	15	2020	8	8	8	0	0	0
215-222	2008	35	10	CNG	Orion 7	11	2023	10	10	10	10	10	10
223-226	2008	40	4	BD	Gillig	11	2023	4	4	4	4	4	4
227,234	2011	40	8	BD	Gillig	8	2026	8	8	8	8	8	8
123-126	2011	35	4	BD	Gillig	8	2026	4	4	4	4	4	4
127-130	2012	35	4	BD	Gillig	7	2027	4	4	4	4	4	4
1801-1806, 1851-1856	2019	35/40	12	CNG	Gillig	0	2034		12	12	12	12	12
TBD	2020	35/40	14	CNG	Gillig	0	2035			14	14	14	14
TBD	2021	35/40	8	CNG	Transit	0	2036				8	8	8
							Fleet Size	**64**	**64**	**64**	**64**	**64**	**64**

CNG - Compressed Natural Gas
BD - Bio-diesel

(Click to expand)

APPENDIX E – ODOT VEHICLE USEFUL LIFE BENCHMARKS

Oregon Vehicle Description and Useful Life Benchmarks

Oregon Rail & Public Transit Division Category	Approx. GVWR (pounds)	No. Seats	Approx Length*	Useful Life Minimum	Price Range	Expected Delivery time (months)
A: Large, Heavy-Duty Transit Bus 	33,000 – 40,000	35-40+	35 ft. - or greater	12 years or 500,000 miles	$241,000 – $800,000	24+
B: Medium-Size, Heavy-Duty Transit Bus 	26,000 – 33,000	25-35	30 ft. – 35 ft.	10 years or 350,000 miles	$79,700 – $335,000	12-24
C: Medium-Size, Medium-Duty Transit Bus & Truck Chassis Cutaway 	15,000 – 26,000	16-30	25 ft. – 30 ft.	7 years or 200,000 miles	$ 65,302 – $120,000	6-18
D: Medium-Size, Light-Duty Bus & Van Chassis Cutaway Bus 	10,000 – 16,000	12-16	20 ft. – 25 ft.	5 years or 150,000 miles	$47,000 – $115,000	6-9
E 1: Small, Light-Duty Bus; E 2: Modified Vans; E 3: Modified Minivans 	6,000 – 14,000	3-14	E 1: 20-22 ft. E 2/E 3: < 20 ft.	4 years or 100,000 miles	$35,000 – $65,000	3-6
Small Standard Vehicles – Are not allowed to be purchased with FTA funds and are not included on the ODOT Rail & Public Transit Division Price Agreement contracts. However, when not using FTA funds these vehicle types may be on the Department of Administrative Services statewide contracts. Check ORPIN online at: https://orpin.oregon.gov/open.dll/welcome						
E 4: Vans E 5: Minivans E 6: Station wagons E 7: Sedans	6,000 – 14,000	3-14	< 20 ft.	4 years or 100,000 miles	$20,000 – $40,000	1-3

* Vehicles 22 ft. or longer require at least 2 ADA stations; 1 ADA station required if less than 22 ft.

Note: Photos are for reference only-provided as examples; from ODOT RPTD files.

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(Click to expand)

END