

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
BOARD ACTION SUMMARY

DEPT: Public Works

BOARD AGENDA:6.C.1  
AGENDA DATE: October 30, 2018

**SUBJECT:**

Approval of the Public Works Transit Asset Management Plan to Comply with Federal Transit Administration Regulations

**BOARD ACTION AS FOLLOWS:**

**RESOLUTION NO. 2018-0537**

On motion of Supervisor Withdraw, Seconded by Supervisor Chiesa  
and approved by the following vote,

Ayes: Supervisors: Olsen, Chiesa, Withrow, Monteith, and Chairman DeMartini

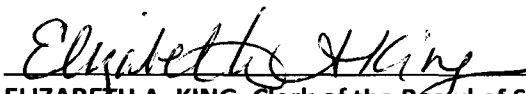
Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

- 1)  Approved as recommended
- 2)  Denied
- 3)  Approved as amended
- 4)  Other:

MOTION:

ATTEST:   
ELIZABETH A. KING, Clerk of the Board of Supervisors

File No.

**THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
AGENDA ITEM**

DEPT: Public Works

BOARD AGENDA:6.C.1  
AGENDA DATE: October 30, 2018

CONSENT:

CEO CONCURRENCE:

4/5 Vote Required: No

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**SUBJECT:**

Approval of the Public Works Transit Asset Management Plan to Comply with Federal Transit Administration Regulations

**STAFF RECOMMENDATION:**

1. Approve the Public Works Transit Asset Management Plan to comply with Federal Transit Administration Regulations.

**DISCUSSION:**

According to the Federal Transit Administration (FTA), public transportation provides millions of people with daily access to jobs, schools, grocery stores, etc. In 2015, the U.S. Department of Transportation (USDOT) found that approximately 40 percent of transit buses were in poor condition. The cost to bring all of the nation's transit assets into a state of good repair is estimated at \$89.8 billion. As this backlog continues to grow, the safety and ability of a transit system is adversely affected. In response, the FTA has mandated that each transit system provide a Transit Asset Management (TAM) Plan to help prioritize funding needs for capital transportation assets.

In July of 2016, the FTA issued a mandate requiring transit agencies to develop a TAM plan and have it in place by October 1, 2018. The new FTA requirement applies to all transit providers that are recipients, or subrecipients, of federal financial assistance under 49 U.S.C. Chapter 53 that own, operate, or manage transit capital assets used in the provision of public transportation. TAM aims to establish a formal administrative system that monitors and manages an agency's public transportation assets so that they can be operated and maintained in State of Good Repair (SGR).

The FTA defines transit asset management 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, to perform safe, cost-effective, and reliable public transportation." The TAM plan is a business model that prioritizes funding based on the condition of transit assets. The plan requires an inventory of all service vehicles used in providing public transit services, facilities and other capital assets greater than \$50,000, an assessment of the condition of those inventoried assets, and a prioritized list of investments to manage assets in a state of good repair.

Smaller agencies are constantly challenged to do more with less, thus it is critical to ensure assets are well taken care of and cost-effectively managed to deliver the service

needed. The TAM plan will assist in the County Public Works Transit Division to make smart and sustainable investment decisions needed to maintain the transit assets.

The TAM plan must be updated, in its entirety, every four years and must cover a horizon period of at least four years. Transit operators are also required to set projected targets, condition assessments, and report changes in transit system conditions of their capital assets to the National Transit Database (NTD).

The Stanislaus County Transit (StaRT) TAM plan (Exhibit A) has been submitted to FTA in compliance with the new regulation.

**POLICY ISSUE:**

Board of Supervisors' approval is required by the Federal Transit Administration to comply with the Transit Asset Management Plan (49 U.S.C. 5326).

**FISCAL IMPACT:**

The total value of StaRT's assets contained in the Transit Asset Management Plan is \$13,069,770.

**BOARD OF SUPERVISORS' PRIORITY:**

The recommended action is consistent with the Board's priority of *Delivering Efficient Public Services and Community Infrastructure* by providing a public transit system that is compliant with Federal and State standards.

**STAFFING IMPACT:**

Existing Public Works Transit staff will oversee the Plan.

**CONTACT PERSON:**

David Leamon, Public Works Director

Telephone: (209) 525-4151

**ATTACHMENT(S):**

1. Transit Asset Management Plan



**Stanislaus County Public Works - Transit Division  
Operating as Stanislaus Regional Transit (StaRT)**

**TRANSIT ASSET MANAGEMENT PLAN**



**Developed: August 2018**

**Stanislaus County Public Works -Transit Division**

**1010 10<sup>th</sup> Street, Suite 4204**

**Modesto, CA 95354**

**[www.srt.org](http://www.srt.org)**

## EXECUTIVE SUMMARY

According to the Federal Transit Authority (FTA) Transit Asset Management (TAM) is a set of strategic and systemic processes and practices for managing performance, risks, and costs of transit assets across the entirety of their lifecycle in order to deliver service reliably, safely, and cost effectively. The TAM plan is a business model that prioritizes funding based on the condition of transit assets. Optimal prioritization of assets will keep transit systems in compliance with the State of Good Repair (SGR) benchmarks as determined by the FTA. An ideal TAM plan incorporates the people, processes, technology, data and the continual improvement to better support these assets over their lifecycle. Smaller agencies are constantly challenged to do more with less, thus ensuring assets are well taken care of and cost-effectively managed to deliver the service needed becomes critical. The TAM Plan will help the County of Stanislaus see the long term investment needed to maintain our assets and make smart and sustainable investment decisions. The benefits of implementing a TAM Plan include:

- Improved transparency and accountability for safety, maintenance, asset use, and funding investments;
- Optimized capital investment and maintenance decisions;
- Data-driven maintenance decisions; and
- System safety and performance outcomes.

The consequences of an asset not being in a SGR include but are not limited to:

- Safety risks (determined by accidents per 100,000 miles);
- Decreased system reliability (On-time performance);
- Higher maintenance costs; and/or
- Diminished system performance (Missed trips due to mechanical issues/breakdowns).

In July of 2016, the FTA issued a final rule requiring transit agencies to maintain, document and report minimum TAM standards. Federal law requires recipients and sub-recipients of Federal dollars to develop a TAM plan that is due to be completed by October 1, 2018.

## **Mission Statement**

Mange and improve infrastructure through safe and efficient use of resources and assets for the benefit of our citizens.

## **About StaRT**

Stanislaus County Public Works - Transit Division, operating as Stanislaus Regional Transit (StaRT), provides transit services in rural unincorporated communities as well urbanized areas. Currently, StaRT provides transit services to the cities of Hughson, Newman, Patterson, Oakdale, Riverbank, and Waterford. StaRT's service area also includes some areas within the city limits of Ceres, Modesto, and Turlock, plus several unincorporated communities including Crows landing, Denair, Empire, Grayson, Hickman, Keyes, and Westley. StaRT presently uses a fleet of vehicles ranging in size from 17 to 54-passenger buses to provide its transit services. An independent contractor provides maintenance and operating services. StaRT has a total fleet of 45 vehicles; sixteen (16) traditional transit type buses, one (1) commuter coach, and twenty-eight (28) cut-away style vehicles of different sizes and bus manufactures.

There are six levels of services offered by StaRT:

1. Fixed-Route which operates throughout Stanislaus County;
2. Commuter Service to Dublin BART;
3. Dial-A-Ride (DAR) Services-a daily curb to curb service for passengers within the towns of Newman, Oakdale, Patterson, and Riverbank;
4. Shuttle Service-a daily curb to curb service for passengers which operates between Stanislaus County towns;
5. ADA Service-traditional paratransit door to door complimentary services; and
6. Medivan Service (non-emergency transportation) which shuttles passengers to select San Francisco/Greater Bay Area medical facilities. Medivan originates at the Modesto Transit Center with a stop in Tracy before dropping in the Bay Area.

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# Stanislaus County Public Works - Transit Asset Management Plan

## Annette Borrelli, Accountable Executive

### Introduction

Stanislaus County Public Works - Transit Division, operating as Stanislaus Regional Transit (StaRT), provides transit services in rural unincorporated communities as well urbanized areas. Currently, StaRT provides transit services to the cities of Hughson, Newman, Patterson, Oakdale, Riverbank, and Waterford. StaRT's service area also includes some areas within the city limits of Ceres, Modesto, and Turlock, plus several unincorporated communities including Crows landing, Denair, Empire, Grayson, Hickman, Keyes, and Westley. StaRT presently uses a fleet of vehicles ranging in size from 17 to 54-passenger buses to provide its transit services. An independent contractor provides maintenance and operating services. StaRT has a total fleet of 45 vehicles; sixteen (16) traditional transit type buses, one (1) commuter coach, and twenty-eight (28) cut-away style vehicles of different sizes and bus manufactures.

### Performance Targets & Measures

Asset Category - Performance Measure	Asset Class	2019 Target
<b>REVENUE VEHICLES</b>		
<b>Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)</b>	<b>AB - Articulated Bus</b>	N/A
	<b>AO - Automobile</b>	N/A
	<b>BR - Over-the-road Bus</b>	0%
	<b>BU - Bus</b>	0%
	<b>CU - Cutaway Bus</b>	0%
	<b>DB - Double Decked Bus</b>	N/A
	<b>FB - Ferryboat</b>	N/A
	<b>MB - Mini-bus</b>	N/A
	<b>MV - Mini-van</b>	N/A
	<b>RT - Rubber-tire Vintage Trolley</b>	N/A
	<b>SB - School Bus</b>	N/A
	<b>SV - Sport Utility Vehicle</b>	N/A
	<b>TB - Trolleybus</b>	N/A
	<b>VN - Van</b>	N/A
	<b>Custom 1</b>	N/A
<b>Custom 2</b>	N/A	
<b>Custom 3</b>	N/A	
<b>EQUIPMENT</b>		
<b>Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)</b>	<b>Non Revenue/Service Automobile</b>	N/A
	<b>Steel Wheel Vehicles</b>	N/A
	<b>Trucks and other Rubber Tire Vehicles</b>	N/A
	<b>Computer Software</b>	N/A
	<b>Custom 2</b>	N/A
<b>Custom 3</b>	N/A	
<b>FACILITIES</b>		
<b>Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale</b>	<b>Administration</b>	N/A
	<b>Maintenance</b>	N/A
	<b>Parking Structures</b>	N/A
	<b>Passenger Facilities</b>	N/A
	<b>Custom 1</b>	N/A
	<b>Custom 2</b>	N/A
<b>Custom 3</b>	N/A	



## Target Setting Methodology

Our targets have been set by using our bus replacement schedule that includes age, vehicle milage, and then determining the number of vehicles we would need to replace on a yearly basis to continue to provide the same level of service to Stanislaus County, while operating within FTA guidelines.

## TAM Vision:

Stanislaus County Public Works Transit Division firmly believes that by implementating this Transit Asset Management System (TAM), that it will allow StaRT to meet its mission and offer safe, efficient, reliable public transportation to the public.

## TAM and SGR Policy:

County Staff has developed this TAM plan to aide in: (1) Assessment of the current condition of capital assets; (2) determine what condition and performance of its assets should be in according to FTA regulations if not currently in a SGR; (3) identify risks including safety risks, in continuing to use that asset if it is not in SGR; (4) deciding how to best balance and prioritize funding (revenues from all funding sources) towards improving asset condition and maintaining a sufficient level of performance within those means.

StaRT's SGR policy:

A capital asset is in a state of good repair (SGR) when each of the following standards is met:

1. If the asset is in a condition sufficient for the asset to operate at a full level of performance. An individual capital asset may operate at a full level of performance regardless of whether or not other capital assets within a public transportation system are in a SGR.
2. The asset is able to perform its manufactured design function.
3. The use of the asset in its current condition does not pose an identified unacceptable safety risk and/or deny accessibility.
4. The assets life-cycle investment needs have been met or recovered, including all scheduled maintenance, rehabilitation and replacements- Useful Life Benchmark (ULB).

## TAM Goals and/or Objectives

Goals	Objectives
Reduce overall revenue vehicle breakdowns	Maintain SGR levels to improve system performance (Minimize vehicle service failures/road calls)
	Maintain vehicle in safe operating condition. Adhere to a strict preventive maintenance schedule
Proactive Budget Planning	County Staff working along with the operator for Capital Project Planning

## About the TAM Plan

Stanislaus County Public Works – Transit Division, (StaRT) is currently operating as a FTA-defined Tier II transit provider. Tier II providers are those transit agencies that are subrecipient of 5311 funds, or less than 100 vehicles across all fixed route modes. StaRT combines safety, performance, SGR and risk factors to evaluate vehicle and equipment. This TAM plan covers a five year horizon and the details in it will be subject to constant review and improvement.

## Roles and Responsibilities

### Roles and Responsibilities

Department/Individual	Role (Title and/or Description)	Subrecipient
Annette Borrelli	Transit Manager	
Juan Portillo	Associate Transit Planner	

## Chp 2- Capital Asset Inventory

The Stanislaus County Public Works – Transit Division, operating as Stanislaus Regional Transit (StaRT) currently owns and has direct capital responsibility of sixteen (16) large buses, twelve (12) cutaway buses 25’-32’, one (1) commuter coach and (16) third party owned cutaway buses which provide fixed-route and complementary ADA paratransit services throughout Stanislaus County. Vehicles miles provided are through June 30, 2018. Additionally, TransTrack a data management software to assist with monitoring and reporting is included in the Transit Division assets.

### Asset Inventory Summary

Asset Category	Total Number	Avg Age	Avg Mileage	Avg Value
<b>Revenue Vehicles</b>	<b>45</b>	<b>4.2</b>	<b>159,564</b>	<b>\$329,289.53</b>
<i>AB - Articulated Bus</i>	0	-	-	-
<i>AO - Automobile</i>	0	-	-	-
<i>BR - Over-the-road Bus</i>	1	2.0	133,685	\$650,000.00
<i>BU - Bus</i>	16	4.9	219,171	\$650,000.00
<i>CU - Cutaway Bus</i>	28	3.9	126,427	\$134,572.46
<i>DB - Double Decked Bus</i>	0	-	-	-
<i>FB - Ferryboat</i>	0	-	-	-
<i>MB - Mini-bus</i>	0	-	-	-
<i>MV - Mini-van</i>	0	-	-	-
<i>RT - Rubber-tire Vintage Trolley</i>	0	-	-	-
<i>SB - School Bus</i>	0	-	-	-
<i>SV - Sport Utility Vehicle</i>	0	-	-	-
<i>TB - Trolleybus</i>	0	-	-	-
<i>VN - Van</i>	0	-	-	-
<i>Custom 1</i>	0	-	-	-
<i>Custom 2</i>	0	-	-	-
<i>Custom 3</i>	0	-	-	-
<b>Equipment</b>	<b>1</b>	<b>2.0</b>	<b>#DIV/0!</b>	<b>\$189,770.00</b>
<i>Non Revenue/Service Automobile</i>	0	-	-	-
<i>Steel Wheel Vehicles</i>	0	-	-	-
<i>Trucks and other Rubber Tire Vehicles</i>	0	-	-	-
<i>Computer Software</i>	1	2.0	N/A	\$189,770.00
<i>Custom 2</i>	0	-	-	-
<i>Custom 3</i>	0	-	-	-
<b>Facilities</b>	<b>0</b>	<b>-</b>	<b>N/A</b>	<b>-</b>
<i>Administration</i>	0	-	N/A	-
<i>Maintenance</i>	0	-	N/A	-
<i>Parking Structures</i>	0	-	N/A	-
<i>Passenger Facilities</i>	0	-	N/A	-
<i>Custom 1</i>	0	-	N/A	-
<i>Custom 2</i>	0	-	N/A	-
<i>Custom 3</i>	0	-	N/A	-

Not Applicable due to asset being software

### **Ch 3- Condition Assessment – Vehicles:**

Condition rating for vehicles are expressed in terms of percentage of assets that are at or beyond the useful life benchmark (ULB) based on FTA Circular 9030.1D, paragraph 4.a. The ULB is defined as the expected lifecycle of a capital asset for the unique operating environment (Service frequency, weather, and geography). Because the ULB criteria are user defined, staff has taken into account the local operating environment of its assets within the service area, longer distance traveled due to providing service County-wide, historical maintenance records, manufacturer guidelines, and the default ULB derived from the FTA. NTD maximum useful life is determined by years of service or accumulation of miles whichever comes first, by asset type as follows:

Table 1.1

<b>Vehicle Type</b>	<b>Default ULB (in years)</b>
AB Articulated bus	14
AG Automated guideway vehicle	31
AO Automobile	8
BR Over-the-road bus	14
BU Bus	14
CC Cable car	12
CU Cutaway bus	10
DB Double decked bus	14
FB Ferryboat	42
HR Heavy rail passenger car	31
IP Inclined plane vehicle	56
LR Light rail vehicle	31
MB Minibus	10
MO Monorail vehicle	31
MV Minivan	8
Other rubber tire vehicles	14
RL Commuter rail locomotive	39
RP Commuter rail passenger coach	39
RS Commuter rail self-propelled passenger car	39
RT Rubber-tired vintage trolley	14
SB School bus	14
Steel wheel vehicles	25
SR Streetcar	31
SV Sport utility vehicle	8
TB Trolleybus	13
TR Aerial tramway	12
VN Van	8
VT Vintage trolley	58

Below is the FTA vehicle replacement and facilities lifecycles standards found in FTA Circular 5010.1E, IV-24:

Recipients of federal assistance must specify the expected minimum useful life in invitations for bids when acquiring new or replacement vehicles. FTA guidelines for Minimum Useful Life are as follows:

Table 1.2

**Minimum Service-life categories for Buses and Vans**

Category	Typical Characteristics				Minimum Life	
	Length	Approx. GVW	Seats	Average Cost	(Whichever comes first)	
					Years	Miles
Heavy-Duty Large Bus	35 to 48 ft and 60 ft artic.	33,000 to 40,000	27 to 40	\$325,000 to over \$600,000	12	500,000
Heavy-Duty Small Bus	30 ft	26,000 to 33,000	26 to 35	\$200,000 to \$325,000	10	350,000
Medium-Duty and Purpose-Built Bus	30 ft	16,000 to 26,000	22 to 30	\$75,000 to \$175,000	7	200,000
Light-Duty Mid-Sized Bus	25 to 35 ft	10,000 to 16,000	16 to 25	\$50,000 to \$65,000	5	150,000
Light-Duty Small Bus, Cutaways, and Modified Van	16 to 28 ft	6,000 to 14,000	10 to 22	\$30,000 to \$40,000	4	100,000

Stanislaus County Public Works - Transit Division (StaRT) utilizes internal spreadsheet reports, and our contractor uses Manager Plus software to maintain inventory, schedule maintenance, parts, and track the condition of assets. County assets are inventoried and tracked in the County's Oracle Accounting and TransTrack Data Management software. The revenue vehicle conditions assessment includes assigning a condition rating to all rolling stock assets for which the County owns or has direct capital responsibility. The County is using the default Useful Life Benchmark (ULB) in years to assess the condition of each revenue vehicle.

**Asset Condition Summary**

Asset Category	Total Number	Avg Age	Avg Mileage	Avg TERM Condition	Avg Value	% At or Past ULB
<b>Revenue Vehicles</b>	<b>45</b>	<b>4.2</b>	<b>159,564</b>	<b>N/A</b>	<b>\$329,956.20</b>	<b>7%</b>
<i>AB - Articulated Bus</i>	0	-	-	N/A	-	-
<i>AO - Automobile</i>	0	-	-	N/A	-	-
<i>BR - Over-the-road Bus</i>	1	2.0	133,685	N/A	\$680,000.00	0%
<i>BU - Bus</i>	16	4.9	219,171	N/A	\$650,000.00	0%
<i>CU - Cutaway Bus</i>	28	3.9	126,427	N/A	\$134,572.46	11%
<i>DB - Double Decked Bus</i>	0	-	-	N/A	-	-
<i>FB - Ferryboat</i>	0	-	-	N/A	-	-
<i>MB - Mini-bus</i>	0	-	-	N/A	-	-
<i>MV - Mini-van</i>	0	-	-	N/A	-	-
<i>RT - Rubber-tire Vintage Trolley</i>	0	-	-	N/A	-	-
<i>SB - School Bus</i>	0	-	-	N/A	-	-
<i>SV - Sport Utility Vehicle</i>	0	-	-	N/A	-	-
<i>TB - Trolleybus</i>	0	-	-	N/A	-	-
<i>VN - Van</i>	0	-	-	N/A	-	-
<i>Custom 1</i>	0	-	-	N/A	-	-
<i>Custom 2</i>	0	-	-	N/A	-	-
<i>Custom 3</i>	0	-	-	N/A	-	-
<b>Equipment</b>	<b>1</b>	<b>2.0</b>	<b>0</b>	<b>N/A</b>	<b>\$189,770.00</b>	<b>0%</b>
<i>Non Revenue/Service Automobile</i>	0	-	-	N/A	-	-
<i>Steel Wheel Vehicles</i>	0	-	-	N/A	-	-
<i>Trucks and other Rubber Tire</i>	0	-	-	N/A	-	-
<i>Computer Software</i>	1	2.0	0	N/A	\$189,770.00	0%
<i>Custom 2</i>	0	-	-	N/A	-	-
<i>Custom 3</i>	0	-	-	N/A	-	-
<b>Facilities</b>	<b>0</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>-</b>	<b>N/A</b>
<i>Administration</i>	0	-	N/A	-	-	N/A
<i>Maintenance</i>	0	-	N/A	-	-	N/A
<i>Parking Structures</i>	0	-	N/A	-	-	N/A
<i>Passenger Facilities</i>	0	-	N/A	-	-	N/A
<i>Custom 1</i>	0	-	N/A	-	-	N/A
<i>Custom 2</i>	0	-	N/A	-	-	N/A
<i>Custom 3</i>	0	-	N/A	-	-	N/A

Currently, there are about 11% cutaway vehicles that have met or passed their useful life benchmark. These vehicles are owned by a third party.

## Chp 4- Decision Support

Stanislaus County Public Works – Transit Division, (StaRT) and our transit operator uses a variety of management practices, policies, and technology to manage, maintain, and plan throughout the life cycle of an asset.

### Decision Support

#### Investment Prioritization

(1) SAFETY - Issues that concern safety or security critical assets or initiatives. This applies to the safety of both riders and employees. (2) COMPLIANCE - Issues that are necessary to fulfill regulatory compliance requirements. (3) MAINTENANCE - Issues for maintenance of existing assets, including State of Good Repair (SGR) projects. (4) ENHANCEMENT - Issues that enhance or expand assets to improve services.

#### Decision Support Tools

The following tools are used in making investment decisions:

Process/Tool	Brief Description
Bus Replacement Schedule	Spreadsheet forecasting future replacement of revenue vehicles
Manager Plus	Maintenance Tracking Software
TransTrack Software	Track, Monitor, Report

#### Risk Management

Risk	Mitigation Strategy
Vehicle Repairs	Conduct Preventive Maintenance Inspections on the original equipment manufacturer (OEM) recommended Mileage Basis
Vehicles/Equipment	Monitoring status of assets through daily and monthly inspections to identify issues and needed repairs.

#### Maintenance Strategy

Asset Category	Asset Class	Maintenance Activity	Frequency	Avg Duration (Hrs)	Cost
RevenueVehicles	BU - Bus	Pre-Trip Inspections	Daily	0.5	Contractor Costs
RevenueVehicles	CU - Cutaway Bus	Pre-Trip Inspections	Daily	0.25	Contractor Costs
RevenueVehicles	BR - Over-the-road Bus	Pre-Trip Inspections	Daily	0.5	Contractor Costs
RevenueVehicles	BU - Bus	Post-Trip Inspections	Daily	0.25	Contractor Costs
RevenueVehicles	CU - Cutaway Bus	Post-Trip Inspections	Daily	0.25	Contractor Costs
RevenueVehicles	BR - Over-the-road Bus	Post-Trip Inspections	Daily	0.25	Contractor Costs
RevenueVehicles	BU - Bus	Preventive Maintenance Inspections	Every 5,000 Miles	2.5	Contractor Costs
RevenueVehicles	CU - Cutaway Bus	Preventive Maintenance Inspections	Every 5,000 Miles	1.5	Contractor Costs

RevenueVehicles	BR - Over-the-road Bus	Preventive Maintenance Inspections	Every 5,000 Miles	2.5	Contractor Costs
RevenueVehicles	BU - Bus	Major PM Service	Every 100,000 mile intervals	6.5	Contractor Costs
RevenueVehicles	CU - Cutaway Bus	Major PM Service	Every 100,000 mile intervals	9	Contractor Costs
RevenueVehicles	BR - Over-the-road Bus	Major PM Service	Every 100,000 mile intervals	6	Contractor Costs

#### Unplanned Maintenance Approach

Contractor's maintenance staff will research to find what caused the breakdown to determine if it could be a fleet wide problem or an isolated problem with one vehicle. The Contractor will contact the Transit Division to discuss the repairs needed, provide warranty status, estimate of the repairs, mileage, and remaining life of the CNG tanks if applicable. As well as the vehicles remaining useful life and the number of additional years of useful life that can be gained from the repairs prior to any work being performed.

#### Overhaul Strategy

Asset Category	Asset Class	Overhaul Strategy
RevenueVehicles	BU - Bus	Transit Division and Operator will discuss the repairs needed, provide warranty status, estimate of the repairs, mileage, and remaining life of the CNG tanks if applicable, as well as the remaining useful life to determine cost effectiveness of overhaul. Contractor repairs damaged or non-functioning assets and components on an "as needed" basis.
RevenueVehicles	CU - Cutaway Bus	Transit Division and Operator will discuss the repairs needed, warranty status, estimate of the repairs, mileage, and remaining life of the CNG tanks if applicable, as well as the remaining useful life to determine cost effectiveness of overhaul. Contractor repairs damaged or non-functioning assets and components on an "as needed" basis.
RevenueVehicles	BR - Over-the-road Bus	Transit Division and Operator will discuss the repairs needed, warranty status, estimate of the repairs, mileage, and remaining life of the CNG tanks if applicable, as well as the remaining useful life to determine cost effectiveness of overhaul. Contractor repairs damaged or non-functioning assets and components on an "as needed" basis.



Disposal Strategy

Asset Category	Asset Class	Disposal Strategy
Revenue Vehicles	BU - Bus	Once the ULB is met or exceeded, the buses are disposed using the following method: 1.) Asset documents are reviewed for remaining book value. 2.) Approval received from the Board of Supervisors. 3.) Vehicles sold through a process approved by the purchasing department.
Revenue Vehicles	CU - Cutaway Bus	Once the ULB is met or exceeded, the buses are disposed using the following method: 1.) Asset documents are reviewed for remaining book value. 2.) Approval received from the Board of Supervisors. 3.) Vehicles sold through a process approved by the purchasing department.
Revenue Vehicles	BR - Over-the-road Bus	Once the ULB is met or exceeded, the buses are disposed using the following method: 1.) Asset documents are reviewed for remaining book value. 2.) Approval received from the Board of Supervisors. 3.) Vehicles sold through a process approved by the purchasing department.

Acquisition and Renewal Strategy

Asset Category	Asset Class	Acquisition and Renewal Strategy
Revenue Vehicles	BU - Bus	County is trying to maintain a fuel neutral fleet maximizing the alternative technologies to reduce operations costs. Projection for replacement start the day new vehicles are put into service.
Revenue Vehicles	CU - Cutaway Bus	County is trying to maintain a fuel neutral fleet maximizing the alternative technologies to reduce operations costs. Projection for replacement start the day new vehicles are put into service.
Revenue Vehicles	BR - Over-the-road Bus	County is trying to maintain a fuel neutral fleet maximizing the alternative technologies to reduce operations costs. Projection for replacement start the day new vehicles are put into service.
Equipment	Computer Software	TransTrack Software is maintained to stay current with reporting changes and upgrades are added when needed.

## **Chp 5- Investment Prioritization**

STaRT shall perform an investment prioritization analysis on a semi-annually basis, in order to:

- (1) Determine what capital investments are needed, quantity, cost and purchasing schedule in order to maintain SGR ; and
- (2) Rate and rank SGR programs and projects in order of implementation priority

### **Proposed Investments:**

**Table 5.1 Investment Prioritization Projects**

<b>Project Year</b>	<b>Project Name</b>	<b>Asset Category</b>	<b>Asset Class</b>	<b>Cost</b>	<b>Priority</b>
2018	(1) 57 Passenger Bus	RevenueVehicles	BR - Over-the-road Bus	\$680,000.00	High
2019	(2) 40' Bus	RevenueVehicles	BU - Bus	\$650,000.00	High
2020	(2) 40' Bus	RevenueVehicles	BU - Bus	\$650,000.00	Medium
2021	(2) 40' Bus	RevenueVehicles	BU - Bus	\$650,000.00	Medium
2022	(2) 40' Bus	RevenueVehicles	BU - Bus	\$650,000.00	Medium

### **Capital Investment Activity Schedules:**

<b>Document Name</b>	<b>File Extension</b>
Bus Replacement Schedule	Excel
Preventive Maintenance Plan	Word

## **SECTION VI: Conclusion**

Stanislaus County Public Works Transit Division, (StaRT) TAM plan is considered a “living” document and it is important to review and revise it annually. The plan will help build future fiscal year’s budget by serving as a baseline for asset management. As more data and information is collected and recorded, additional goals will be included to support asset maintenance and replacement.

The TAM plan will also encourage and follow the State of Good Repair indicators and thus maintain or improve the condition of facility, rolling stock, and equipment assets.

The TAM plan will:

- Identify and limit safety risks
- Prioritize investments
- Help to increase system reliability and accessibility
- Lower maintenance costs
- Increase overall system performance

### [Appendices](#)

Appendix A	Asset Register
Appendix B1	Revenue Vehicle (Rolling Stock) Condition Data
Appendix B2	Equipment Condition Data
Appendix C	Proposed Investment Project List

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
RevenueVehicles	BU - Bus	40' Bus CNG	ORION VII	Low Floor	1	475	StaRT	2008	434,725	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	ORION VII	Low Floor	1	480	StaRT	2008	430,483	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	601	StaRT	2013	249,494	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	602	StaRT	2013	246,805	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	603	StaRT	2013	240,946	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	604	StaRT	2013	249,570	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	605	StaRT	2013	244,263	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	606	StaRT	2014	195,357	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	ORION VII	Low Floor	1	485	StaRT	2008	425,636	\$650,000.00
RevenueVehicles	BU - Bus	35' Bus CNG	NEW FLYER	Low Floor	1	607	StaRT	2013	80,262	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	608	StaRT	2015	127,947	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	609	StaRT	2015	129,896	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	610	StaRT	2015	135,123	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	611	StaRT	2016	101,552	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	612	StaRT	2016	111,872	\$650,000.00
RevenueVehicles	BU - Bus	40' Bus CNG	NEW FLYER	Low Floor	1	613	StaRT	2016	102,810	\$650,000.00
RevenueVehicles	CU - Cutaway Bus	32' Bus	Champion	Inter. Navistar	1	321	StaRT	2013	156,973	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	EL DORADO	1	01-15	StaRT	2016	31,603	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	01-16	StaRT	2016	41,416	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	02-16	StaRT	2016	34,950	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	03-16	StaRT	2016	33,935	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	04-16	StaRT	2016	25,417	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	05-16	StaRT	2016	27,560	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	06-16	StaRT	2016	22,096	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	07-16	StaRT	2016	21,943	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	08-16	StaRT	2016	29,358	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	FORD	Starcraft	1	09-16	StaRT	2016	16,009	\$150,000.00
RevenueVehicles	CU - Cutaway Bus	32' Bus CNG	FORD	Champion	1	10-17	StaRT	2016	22,511	\$150,000.00
RevenueVehicles	BR - Over-the-road Bus	45' Bus	MCI	D-4500	1	90-16	StaRT	2016	133,685	\$680,000.00
RevenueVehicles	CU - Cutaway Bus	25' Bus	FORD	EL DORADO	1	345	Storer Transit Systems	2008	333,679	\$110,598.52
RevenueVehicles	CU - Cutaway Bus	25' Bus	FORD	EL DORADO	1	350	Storer Transit Systems	2008	311,226	\$110,598.52
RevenueVehicles	CU - Cutaway Bus	25' Bus	FORD	EL DORADO	1	355	Storer Transit Systems	2008	336,908	\$110,598.52
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1601	Storer Transit Systems	2014	168,083	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1602	Storer Transit Systems	2014	155,245	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1603	Storer Transit Systems	2014	240,946	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1604	Storer Transit Systems	2014	151,386	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1605	Storer Transit Systems	2014	156,227	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1606	Storer Transit Systems	2014	146,125	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1607	Storer Transit Systems	2014	162,415	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1608	Storer Transit Systems	2014	157,601	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1609	Storer Transit Systems	2014	155,806	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1610	Storer Transit Systems	2014	152,509	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1611	Storer Transit Systems	2014	145,218	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1612	Storer Transit Systems	2014	142,864	\$125,864.11
RevenueVehicles	CU - Cutaway Bus	25' Bus	CHEVY	EL DORADO	1	1613	Storer Transit Systems	2014	159,942	\$125,864.11
Equipment	Computer Software	TransTrack Manager	TransTrack		1	43	StaRT	2016		\$189,770.00

Miles through June 30, 2018

## 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	BR - Over-the-road Bus	45' Bus	1	90-16	2	133,685	\$680,000.00	14	No
RevenueVehicles	BU - Bus	35' Bus CNG	1	607	5	80,262	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	475	10	434,725	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	480	10	430,483	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	485	10	425,636	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	601	5	249,494	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	602	5	246,805	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	603	5	240,946	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	604	5	249,570	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	605	5	244,263	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	606	4	195,357	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	608	3	127,947	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	609	3	129,896	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	610	3	135,123	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	611	2	101,552	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	612	2	111,872	\$650,000.00	14	No
RevenueVehicles	BU - Bus	40' Bus CNG	1	613	2	102,810	\$650,000.00	14	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	345	10	333,679	\$110,598.52	10	Yes
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	350	10	311,226	\$110,598.52	10	Yes
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	355	10	336,908	\$110,598.52	10	Yes
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1601	4	168,083	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1602	4	155,245	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1603	4	240,946	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1604	4	151,386	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1605	4	156,227	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1606	4	146,125	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1607	4	162,415	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1608	4	157,601	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1609	4	155,806	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1610	4	152,509	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1611	4	145,218	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus	1	1612	4	142,864	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	01-15	2	31,603	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	01-16	2	41,416	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	02-16	2	34,950	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	03-16	2	33,935	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	04-16	2	25,417	\$150,000.00	10	No

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	CU - Cutaway Bus	25' Bus CNG	1	05-16	2	27,560	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	06-16	2	22,096	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	07-16	2	21,943	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	08-16	2	29,358	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25' Bus CNG	1	09-16	2	16,009	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	25" Bus	1	1613	4	159,942	\$125,864.11	10	No
RevenueVehicles	CU - Cutaway Bus	32' Bus	1	321	5	156,973	\$150,000.00	10	No
RevenueVehicles	CU - Cutaway Bus	32' Bus CNG	1	10-17	2	22,511	\$150,000.00	10	No

## 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	Computer Software	TransTrack Manager	1	43	2		\$189,770.00	10	No

### Appendix C: Proposed Investment Project List

Project Year	Project Name	Asset/Asset Class	Cost	Priority
2018	(1) 57 Passenger Bus	RevenueVehicles	\$650,000.00	High
2019	(2) 40' Bus	RevenueVehicles	\$650,000.00	High
2020	(2) 40' Bus	RevenueVehicles	\$650,000.00	Medium
2021	(2) 40' Bus	RevenueVehicles	\$650,000.00	Medium
2022	(2) 40' Bus	RevenueVehicles	\$650,000.00	Medium