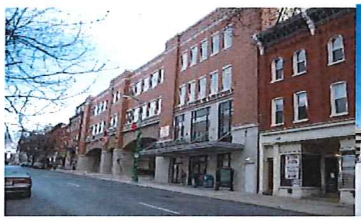
South Central Transit Authority

Transit Asset Management Plan 2018



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I. Introduction

In July 2012, the President signed into law the Moving ahead for Progress in the 21st Century Act (MAP-21) which gives new requirements for transit authorities on asset management and investment strategy. MAP-21 established requirements for transit agencies to develop a performance-based asset management plan and thus have a strategic and systematic means of operating, maintaining, and improving public transportation capital assets effectively. Resources to replace vehicles, facilities and equipment tend to be limited so the funds need to be allocated effectively. This asset management plan is designed to provide a guideline for how all assets should be maintained or replaced in order to function at their ideal capacity and meet their designed useful life. It also provides an investment strategy that could optimize the asset's performance at the lowest cost. The South Central Transit Authority (SCTA) is required to meet the provisions of MAP-21 and the guidelines provided by the Federal Transit Administration (FTA) to prepare a Transit Asset Management Plan (TAMP). The document that follows fulfills the requirement.

A. Background

SCTA became into existence as a result of the merger of the administrative staffs of the Red Rose Transit Authority (RRTA) in Lancaster, Pennsylvania and the Berks Area Regional Transportation Authority (BARTA) in Reading, Pennsylvania in January 2015. As a result of the merger, SCTA became the designated recipient for all federal and state funds for both the Lancaster and Reading Urbanized Areas and has the responsibility for compliance for both urbanized areas. It should be noted that both BARTA and RRTA continue to be the operating arm of SCTA and employ all the drivers and mechanics needed to provide service. Because there remained open federal grants at both of these agencies prior to the merger, SCTA is also responsible to meet the compliance requirements of these open grants; however, federal requirements, such as developing the TAMP, will only be by SCTA. Further, as part of the merger, both BARTA and RRTA have leased all the assets to SCTA in order that the maintenance and rehabilitation costs are eligible for federal funding. It is the intent over time that the ownership of vehicles and equipment as they are replaced become property of SCTA rather than BARTA or RRTA. This is a very unique arrangement in the industry in terms of merging two transit systems, but SCTA has been able to consolidate all the compliance and reporting requirements at the federal and state levels and for the first time is completing a combined report for the National Transit Database (NTD) beginning with the FY 2017 report.

In terms of operating characteristics, RRTA currently operates fixed route bus service with 42 buses and contracts with a private carrier to operate 73 vans for shared-ride demand responsive services throughout Lancaster County. RRTA owns three major facilities: the Erick Road Operations Center, Queen Street Station in downtown Lancaster and the Queen Street Station Parking Garage, which connects to the Queen Street Station bus terminal. BARTA currently

operates fixed route bus service with 50 buses and directly operates most of the shared-ride demand responsive services in Berks County with 42 vehicles, plus contracts with the same private contractor used in Lancaster to supplement the service and leases twenty vehicles to them to provide service. BARTA owns four major facilities: the Operations Center on 11th Street, the BARTA Transportation Center in downtown Reading, Park-n-Transit Garage and Franklin Street Station which are adjacent to each other and across the street from the transit center in downtown Reading.

Together, annual fixed route ridership was 4,591,173 and annual paratransit ridership was 526,744 in FY 2017 for SCTA. The total budget for FY 2017 was $32,031,339 with a combined 3,056,666 revenue miles for fixed route and 3,102,046 revenue miles for paratransit service. SCTA's service area is 1,799 square miles which includes all of Berks and Lancaster Counties in Pennsylvania with a combined population of 932,966 reported in the 2010 Census. It should be noted that SCTA is comprised of ten Board members with five members appointed by each County served. The five from each County also then comprise the Board of Directors for RRTA and BARTA, respectively.

SCTA defines State of Good Repair (SOGR) following the federal guideline. According to SCTA's definition, the State of Good Repair is achieved when all capital assets are properly maintained or replaced and are functioning at ideal capacity within their designed life. This report also includes RRTA and BARTA's previous financial performance and the anticipated funding level in the upcoming fiscal years.

B. Plan Requirements

In accordance with FTA requirements published in 49 CFR Parts 625 and 630, the TAM Plan should include the following elements:

(1) An inventory of the number and type of capital assets. The inventory must include all capital assets that a system owns, except equipment with an acquisition value under $50,000 that is not a service vehicle. An inventory also must include third party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a system in the provision of public transportation. The asset inventory must be organized at a level of detail in the systems program of capital projects;

(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;

(3) A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization.

(4) A project based prioritization of investments, developed in accordance with Section 625.33.

(5) A TAM and SGR policy;

(6) A TAM plan implementation strategy;

(7) A description of key TAM activities that a system intends to engage in over the TAM plan horizon period;

(8) A summary or list of resources, including personnel needed to develop and carry out the TAM plan; and

(9) An outline of how to monitor, update, and evaluate, as needed, its TAM plan and related business practices, to ensure the continuous improvement of its TAM practices.

For the purposes of the TAM plan, the horizon period must cover at least a four year period which should coincide with the development of the Transportation Improvement Program (TIP). The Plan should be amended whenever there is a significant change to the asset inventory, condition assessments, or investment prioritization that was not reasonably anticipated during the development of the TAM plan.

The TAM plan must include an investment prioritization that identifies the programs and projects to improve or manage over the TAM plan horizon period the state of good repair of capital assets for which there is direct capital responsibility by SCTA. SCTA must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year. The project rankings must be consistent with the TAM policy and strategies. When developing an investment strategy, SCTA must give due consideration to those state of good repair projects to improve the quality of service and/or that pose an identified unacceptable safety risk when developing its investment prioritization. Also, when developing an investment prioritization, SCTA must take into consideration its estimation of funding levels from all available sources that it expects to receive each fiscal year.

C. Definitions

Accountable Executive - means the person who has ultimate responsibility for carrying out the transit asset management practices at SCTA which is the Executive Director.

Asset Category – means a grouping of asset classes, including a grouping of equipment, a grouping of rolling stock, a grouping of infrastructure, and a grouping of facilities.

Asset Class – means a subgroup of capital assets within an asset category.

Asset inventory – means a register of capital assets and information about those assets.

Capital Asset – means a unit of rolling stock, a facility, a unit of equipment, or an element of infrastructure used for providing public transportation.

Decision support tool – means an analytic process or methodology: 1) To help prioritize projects to improve and maintain the state of good repair of capital assets within a public transportation system, based on available condition data and objective criteria; or 2) To assess financial needs for asset investments over time.

Equipment – means an article of nonexpendable, tangible property having a useful life of at least one year.

Facility – means a building or structure that is used in providing public transportation.

Full level of performance - means the objective standard established by FTA for determining whether a capital asset is in a state of good repair.

Horizon period – means the fixed period of time within which a transit provider will evaluate the performance of its TAM plan.

Implementation strategy – means an approach to carrying out TAM practices, including establishing a schedule, accountabilities, tasks, dependencies, and roles and responsibilities.

Infrastructure – means the underlying framework or structures that support a public transportation system.

Investment prioritization – means the ranking of capital projects or programs to achieve or maintain a state of good repair. An investment prioritization is based on financial resources from all sources that are reasonably anticipated to be available over the TAM plan horizon period.

Key asset management activities – means a list of activities that are critical to achieving its TAM goals.

Life cycle cost – means the cost of managing as asset over its whole life.

Performance Measure – means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance target – means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the FTA.

Rolling Stock – means a revenue vehicle used in providing public transportation, including vehicles used for carrying passengers on fare free services.

Service vehicle – means a unit of equipment that is used primarily either to support maintenance and repair work for a system or for delivery of materials, equipment, or tools.

State of Good Repair (SGR) – means the condition in which a capital asset is able to operate at a full level of performance.

TERM scale – means the five (5) category rating system used in the FTA's Transit Economic Requirements Model to describe the condition of an asset: 5.0-Excellent, 4.0-Good, 3.0-Adequate, 2.0-Marginal, 1.0-Poor.

Tier I provider – means a transit system that owns, operates, or manages either (1) one hundred and one (101) or more vehicles in revenue service during peak regular service across all fixed route modes or in any one non-fixed route mode, or (2) rail transit.

Tier II provider – means a recipient that owns, operates, or manages one hundred (100) or fewer vehicles in revenue service during peak regular service during peak regular service across all non-rail fixed route modes or in any one non-fixed route mode.

Transit asset management (TAM) means 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 – means a plan that includes an inventory of capital assets, a condition assessment of inventoried assets, a decision support tool, and a prioritization of investments.

Transit asset management policy– means a documented commitment to achieving and maintaining a state of good repair for all of its capital assets.

Transit asset management strategy – means the approach a transit provider takes to carry out its policy for TAM, including its objectives and performance targets.

Transit asset management system – means a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively, throughout the life cycles of those assets.

Useful life – means either the expected life cycle of a capital asset or the acceptable period of use in service determined by FTA.

Useful life benchmark (ULB) – means the expected life cycle or the acceptable period of use in service for a capital asset, as determined by the system or the default benchmark provided by FTA.

SCTA is required to project funding that it reasonably expects will be available in each fiscal year during the TAM plan horizon period. Further, SCTA 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.

D. Performance Management

The goal of the TAM Plan is for SCTA to reach and maintain a state of good repair for all of its capital assets. In order to reach this goal, there must be performance measures in place to monitor all of SCTA's capital assets to determine if and when the state of good repair is reached. The FTA has established standards in the guidance to determine when an asset has reached a state of good repair as follows:

(1) The capital asset is able to perform its designed function;

(2) The use of the asset in its current condition does not pose an identified unacceptable safety risk; and

(3) The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

The FTA also developed guidance on performance measures for capital assets that can be used to determine if the goal of reaching a state of good repair is being met for each asset class as follows:

(1) *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 Useful Life Benchmark (ULB).

(2) *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.

(3) *Infrastructure: rail fixed-guideway, track, signals, and systems.* The performance measure for rail fixed guideway, track, signals, and systems is the percentage of track segments with performance restrictions.

(4) *Facilities.* The performance measure for facilities is the percentage of facilities within as asset class, rated below condition 3 on the TERM scale.

For the performance measures to be effective, it is important that SCTA set performance targets for each applicable capital assets. The performance target should be based on realistic expectations, and both the most recent data available and the financial resources from all sources that SCTA reasonably expects will be available during the TAM plan horizon period. Performance targets must be set for the following fiscal year for each asset class included in its TAM plan. It will be the responsibility of the Executive Director of SCTA to approve the performance targets each year and coordinate with the MPO in each of its service areas on the targets. SCTA must report the annual results of its performance targets and condition information to the FTA through the National Transit Database including a narrative report that provides a description of any change in the condition of SCTA's system from the previous year

and describes the progress made during the year to meet the performance targets set the previous reporting year.

II. ASSET INVENTORY

As contained in the definitions, the FTA requires transit systems to identify all capital assets with a value of $50,000 or more for the purposes of this Plan. The regulations also define asset categories that include rolling stock, equipment, infrastructure, and facilities. For rolling stock, this includes all the buses and paratransit vehicles operated and managed by SCTA that includes a fleet of 42 buses and 72 paratransit vans in Lancaster and 50 buses and 62 paratransit vans in Reading. A complete roster of buses and paratransit vehicles are shown in Appendix A. As shown, the average age of buses at each location is 5.7 years in Lancaster and 9.8 years in Reading. It should be noted that seven new buses have recently been delivered in Reading to replace part of the seventeen buses in that fleet that have reached their useful life. Also, another ten buses were ordered for Reading in September, 2017 with delivery split in half with five expected by the end of 2018 and five expected in Spring of 2019. SCTA has also placed an order for seven more buses for Reading in April, 2018 with expected delivery in Summer, 2019. For Lancaster, three are currently five buses on order that will replace the three Trolley buses which are the oldest vehicles in the Lancaster fleet with a delivery date by the end of 2018. An order was also placed for six more buses in April, 2018 with an expected delivery date of Summer, 2019.

For the paratransit fleet, the average age in Lancaster is 3.7 years and 3.9 years in Reading. SCTA has placed an order for eleven vans for Reading and ten vans for Lancaster in November, 2017 with expected delivery by Summer, 2018. There was also an order for six mini-vans for Lancaster in December, 2017 that were delivered in May 2018 and an order for six vans for Lancaster placed in April, 2018 with delivery expected in late Fall, 2018.

In terms of equipment, which includes non-revenue vehicles and maintenance equipment with a value over $50,000, is listed Appendix B for both locations. For facilities, the categories include administrative and maintenance facilities, passenger facilities, and parking facilities. SCTA currently manages and maintains seven facilities that include two administrative-maintenance facilities, three passenger facilities and two parking facilities. A listing and location of all the facilities is shown in Appendix C.

Traditionally, SCTA has based capital asset replacements on the general expected useful guidelines established by the FTA in its grant management circular (FTA 5010). These general guidelines include such useful life parameters as 12 years or 500,000 miles for buses, five years for paratransit transit vans, 50 years for all facilities, and 8-15 years for equipment, not including non-revenue vehicles that can be anywhere from 5-15 years depending on the vehicle purpose and mileage. While SCTA has generally tracked its own assets internally, it should be noted that the Pennsylvania Department of Transportation (PADOT), through its Bureau of Public Transit (BPT), developed its own capital planning tool software. SCTA is required to keep a listing of all of its capital assets on the state's system that includes annual mileages for revenue vehicles. The state system includes more assets with lower dollar values than required by the

FTA, but does provide a good tool for determining annual capital funding needs for state dollars. It should also be noted, that due to funding constraints, PADOT has opted to modify the standard useful life measures used by the FTA for revenue vehicles. In particular, rolling stock, such as buses and paratransit vans, are considered to be beyond their useful life if both the years of service and mileage levels are reached rather than using one of those measures that the FTA guidelines state. However, PADOT has indicated that it will consider other factors in the decision to fund replacement vehicles which is critical to SCTA's ability to reach a state of good repair since PADOT is the primary source for non-federal funds for all capital purchases. This is also a factor that SCTA must consider in the development of performance measures under this Plan.

The assets discussed in TAM are the physical capital assets located in Lancaster and Reading. SCTA keeps a full list of all capital assets retained at both the Lancaster and Reading locations. There are 27 asset groups and the assets in Lancaster and Reading are separately listed. The Asset Inventory lists the main services, vehicle, facilities, maintenance equipment, as well as communication equipment, service equipment, office equipment and miscellaneous equipment. The Asset Inventory is updated at the end of every fiscal year. All assets listed are active and assets that are sold during the fiscal year will be removed and the newly bought assets will be added.

SCTA has developed an individual asset inventory sheet that includes the asset tag, title, vendor, location, description, date of in-service and asset serial numbers. All the assets are managed and maintained by SCTA, with most owned by RRTA and BARTA prior to the merger. Most vehicles are located at either Erick Road Operation Center in Lancaster or the 11th Street Operation Center in Reading. SCTA also has shared-ride vehicles both in Lancaster and Reading that are operated and maintained by Easton Coach, the private operator under contract. The replacement date for each asset is calculated based on the year in service and the useful life developed by SCTA's life cycle policy which will be illustrated in the later section of this report. The condition of each asset other than vehicles is rated from 5 to 1. Each number respectively represents "Excellent", "Good", "Fair", "Poor" and "Beyond useful life" with 5 for "Excellent" and 1 for "Beyond useful life". The condition of vehicles is evaluated by the mileage of individual vehicle, which was collected at the end of fiscal year 2017 and will be updated every year.

The inventory sheet also shows the purchase cost, supplemental cost and total cost for each asset. SCTA keeps track of the use of public funds with a listing of federal and state grants that have been used to purchase the asset recorded and the percentage of FTA funds that is used for the asset is also indicated on the sheet. After the asset is beyond its useful life and the disposition of the asset is completed, the inventory sheet records this information and the sheet is maintained in a separate "disposition" file. A sample of this form for a vehicle, equipment, facility, and disposition sheet is shown in Appendix D.

III. CAPITAL ASSET CONDITION ASSESSMENT

Once SCTA has conducted an inventory of the capital assets to be included in the TAM Plan, the next step is to determine the condition of each asset. This is important for evaluating the useful life of an asset and the need to either replace or in the case of facilities, if renovations and upgrades are needed to achieve SOGR. In order to properly assess the condition of an asset, it is important that SCTA have procedures and data collection efforts in place that provide the necessary data needed to assess the condition of an asset. As required, 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. Therefore, it is important for SCTA to determine the acceptable condition and performance measures, the frequency of data collection, and the inspection approach, either visual or manual inspections with technology-enabled monitoring. It is also necessary that SCTA staff be properly trained and have the skills required to conduct the inspections.

SCTA recognizes the importance and value of conducting assessments and performance monitoring that include:

Improved ability to proactively invest in preventive maintenance activities to minimize premature asset failure (risk management) through targeted condition inspections and better use of condition data;

Improve capital, operations, and maintenance budget forecasting based on more accurate predictive modeling of an asset's condition (based on improved historic and current asset condition data);

Refined maintenance strategies (based on improved understanding of an asset's condition throughout its lifecycle), which can improve resource allocation and asset performance;

Avoidance of premature asset failure (based on targeted condition inspections), which can improve overall reliability and cost effectiveness goals;

Avoidance of premature asset replacement based on condition data that demonstrates the asset is meeting its level of service requirements.

Key implementation principles associated with the establishment of an asset management condition assessment and performance monitoring include the following:

The criticality of the asset (If the asset fails, what are the consequences? How safety critical is this asset?)

The type, usage, and age of the asset (Is the asset close to the end of its useful life, so more likely to fail?)

The asset environment (Is the asset exposed to environmental conditions that might cause faster deterioration?)

The asset usage (How much is this asset used and how well it is operated?)

The ability of SCTA to improve the asset's performance through maintenance activities.

The ability to access the assets (Is the asset underground or in another remote location?)

The past performance of the assets reflecting level of deterioration.

As with most rolling stock, equipment, and sub-components of facilities, the manufacturers recommended preventive maintenance program forms the foundation to the inspection program. The FTA TAM Rule specifies standards for measuring the condition of capital assets and SGR performance measures for assets. The following requirements must be met for an asset to be considered able to operate at a full level of performance:

1. The asset must be able to perform its designed functions.
2. The use of the asset does not pose an identified unacceptable safety rule.
3. The lifecycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

An individual asset may operate at a full level of performance regardless of whether or not other capital assets in the system are in a state of good repair.

With these principles in mind, SCTA conducted a review of the data collection efforts currently in place that evaluate the performance of each asset. For SCTA, the Preventive Maintenance Plan for the revenue fleet provides very detailed performance data for each vehicle type and individual vehicle. The current maintenance software being used, TMW, tracks all maintenance data for each vehicle and tracks the preventive maintenance schedule for each vehicle based on mileage. The preventive maintenance schedule is based on the vehicle manufacturer's recommended intervals.

Vehicle Fleet

For the bus fleet, there is a 6,000 mile, 12,000 mile, 30,000 mile and 60,000 mile service with each service level including a greater level of maintenance as shown in the preventive maintenance checklist for each interval in Appendix E. The Maintenance Department produces a monthly performance report that includes vehicle miles, fuel usage, oil usage, roadcalls (both major and minor) and overall performance measures, such as miles between roadcalls and fuel economy of the fleet as shown in Appendix F. The annual performance is also tracked for trend analysis and benchmarking against national performance on roadcall rates through the NTD reports. Appendix G shows the roadcall rates for both locations and SCTA overall from FY

2003 to FY 2016. As shown, SCTA compares fairly well with the national trends for roadcall rates.

For the paratransit fleet, a similar frequency of preventive maintenance schedule is utilized. The main difference between the bus and paratransit fleet is that a large majority of the paratransit fleet is contracted maintenance with a private operator providing all the service in Lancaster and roughly a quarter of the service in Reading. A requirement of the contract with the private operator, Easton Coach, is that the same preventive maintenance schedule is followed as recommended by the vehicle manufacturer. Easton Coach also uses a maintenance software program to track maintenance on the vehicles and is made available to SCTA upon request at any time to ensure that the preventive maintenance schedule is being followed. A monthly report is provided to SCTA by Easton Coach that includes vehicle miles, fuel usage, and roadcall records for the month. Unfortunately, the NTD does not provide summaries for paratransit service on these measures as done with bus service. The only method to obtain such information would be to compile from data for each individual system that would be very time consuming and difficult to determine trends.

As noted earlier, SCTA generally follows the guidance contained in FTA Circular 5010 for the useful life of rolling stock, equipment and facilities with the slight modification for the PADOT guidance on useful life criteria. For heavy duty buses operated by SCTA, the useful life is twelve years and 500,000 miles (PADOT) and for paratransit vans, it is five years and 150,000 (PADOT) miles. As shown in Appendix A, the vehicles in Lancaster tend to have higher mileage at twelve years generally exceeding the 500,000 mile mark due to the more rural nature of the service. In Reading, the buses tend to have lower mileages at the end of twelve years in the 400,000 plus miles due to the more urban nature of that service. For the paratransit vans, both locations generally exceed the 150,000 mile mark at the end of five years.

SCTA also reports the annual mileages for the rolling stock into PADOT's capital planning tool as noted previously to enable funding decisions by the State to be based on actual data for determining replacement needs. Management staff at SCTA then utilizes all the data for rolling stock to determine priorities for vehicle replacements.

Facilities

In the case of evaluating the condition of facilities, SCTA will utilize the five point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

5-Excellent 4-Good 3-Adequate 2-Marginal 1-Poor

Based on this scale, a rating of 3 or higher is considered to be in a good state of repair for an asset, while a rating of 1 or 2 is considered to be not in a good state of repair. To evaluate each of its facilities, SCTA will inspect and assess the following components at each facility as follows:

1. Substructure
2. Shell
3. Interiors
4. Conveyance (elevators)
5. Plumbing
6. HVAC
7. Fire Protection
8. Electrical
9. Equipment
10. Site

Each of these components will be rated based on the TERM scale and then aggregated to determine the overall rating for each facility. For the Administrative/Maintenance Facility assessment, SCTA will inspect components and sub-components as recommended in the FTA Facility Condition Assessment Guidebook that include the following:

Component	**Sub-Component**
Substructure	Foundations: Wall columns, pilings, other structural components. Basement: Materials, insulation, slab, floor, underpinnings.
Shell	Superstructure/structural frame: columns, pillars walls. Roof: roof surface, gutters, eaves, skylights, chimney surrounds. Exterior: Windows, doors, and all finishes (paint, masonry) Shell appurtenances: Balconies, fire escapes, gutters, downspouts.
Interiors	Partitions: walls, interior doors, fittings, such as signage. Stairs: Interior stairs and landings Finishes: Materials used on walls, floors, ceilings.
Conveyance	Elevators Escalators Lifts: any other such fixed apparatuses for the movement of goods and people.

Plumbing	Fixtures
	Water distribution Sanitary Waste Rain water drainage
HVAC	Energy Supply Heat generation and distribution systems Cooling generation and distribution systems Testing, balancing, controls and instrumentation Chimneys and vents
Fire Protection	Sprinklers Standpipes Hydrants and other fire protection specialties
Electrical	Electrical service and distribution Lighting and branch wiring (interior & exterior) Communications and security Other electrical system-related pieces, such as lightning protection, generators, and emergency lighting.
Equipment	Equipment related to the function of the facility, including maintenance or vehicle service equipment with a value over $10,000.
Site	Roadways/driveways and associated signage, markings and equipment.
	Parking lots and associated signage, markings, and equipment.
	Site development, such as fences, walls and miscellaneous structures.
	Landscaping and irrigation.
	Site utilities.

For passenger waiting facilities and parking garages, all the above would apply, plus adding a section for fare collection equipment. This includes ticket machines, pay stations and any other major equipment requiring capital funds to replace.

As noted, SCTA will be using the TERM scale for evaluating the condition of each of its facilities. This rating scale will be applied as follows:

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

To effectively apply the TERM scale and the recommended component inspection at each facility, SCTA has developed a facility inspection form for the two asset facility classes in operation as shown in Appendix H and Appendix I. Appendix H will be used for Administrative/Maintenance facilities and Appendix I will be used for Passenger Waiting and Parking facilities.

SCTA has designated the Director of Facilities and Systems the responsibility for conducting the facility condition assessments. Each facility will be assessed using either Appendix H or Appendix I on an annual fiscal year basis with completion by June 30th each year to coincide with annual reporting required by the NTD. It should be noted that facility inspections are being conducted on a monthly basis in accordance with SCTA's Preventive Maintenance Plan. These inspections concentrate more on routine maintenance and safety-related items, such as lighting, security cameras, fire prevention systems and other related items. These routine inspection forms are shown in Appendix I.

To determine the rating for each facility, SCTA has decided to utilize the Median Value option as contained in FTA's Guidelines for Facility Condition Assessment due to limited data on component replacement costs. It is possible that in subsequent years as component replacement

costs become known, SCTA may switch to the weighted average condition approach in the future. The median value will be calculated by tabulating the component quantity inspected at each condition rating, and use as the overall component rating the lowest rating achieved by at least half of the component quantity. SCTA will then determine the median value across components. This will be calculate by tabulating the number of components inspected at each condition rating and use as the overall rating the lowest rating achieved by at least half of the components.

Using the above described methodology, SCTA performed an assessment for each of the seven facilities in operation. The assessment was performed using the appropriate form for each facility class with the following results:

Administrative/Maintenance Facility – Lancaster – The overall score for this facility was a 4.0 with the facility being in very good condition in all aspects. This facility underwent a complete renovation in 2010 with all new systems being installed.

Administrative/Maintenance Facility – Reading – The overall score for this facility was a 3.0 with the facility being in generally good condition. There is a planned expansion and renovation of the bus storage area that will improve this rating and enable nearly the entire fleet to be stored under roof. This will include upgrades to the systems for this area that will improve energy efficiency and is slated to begin in the Spring of 2018.

Queen Street Station – Lancaster – The overall score for this facility was a 2.0 due to the low scores for the site. The concrete bus area is failing throughout the facility even though it was constructed in 2005. The snow melt system has also totally failed. SCTA began to address these issues in 2017 with the complete reconstruction of all paved areas and upgrades to the passenger waiting area to improve safety and security of the facility. The project is expected to be completed by the end of 2017 and the score is expected to be raised to at least a 5.

Queen Street Station Parking Garage – Lancaster - The overall score for this facility was a 4.0 with the facility in very good condition and only five years old. All components are in very good condition.

BARTA Transportation Center (BTC) – Reading - The overall score for this facility was 3.0 with a few components scoring 2.0. The facility is 14 years old and there have been some issues with roof leaks. SCTA is programming funds for replacing the roof in the next few years. SCTA will also be programming future funds to upgrade the HVAC and security systems. It should be noted that this facility contains 100 parking spaces under the transit center that is managed by the Reading Parking Authority as part of an agreement to purchase the land and lasts 20 years from the date of opening in 2003.

BARTA Park-n-Ride Facility – Reading – This facility had an overall score of 4 since improvements have been made within the last year to upgrade lighting and security systems. The

facility was built in 2005 and is managed by the Reading Parking Authority as part of the land purchase agreement that expires after 20 years from the opening of the BTC.

Franklin Street Station – Reading – The overall score for this facility was a 5.0 since the facility underwent a complete renovation in 2013. This is the former Reading Railroad passenger terminal that was originally constructed in 1929.

From a facility standpoint, SCTA is in very good shape with all facilities having an overall score of 3 or higher, especially after the completion of the Queen Street Station renovations and the expansion and renovation of the bus storage area at the Reading Operations Center in 2018. SCTA has been very proactive in the preventive maintenance of its facilities and ensuring that systems and equipment are on routine preventive maintenance schedules. This has been accomplished either through in-house employees or contracted vendors in accordance with SCTA's Preventive Maintenance Plan.

Equipment

As previously noted, the TAM Plan is required to include assets under the equipment class that have a value of $50,000 or more. As shown in Appendix B, SCTA currently maintains ten pieces of equipment that fall into this category. It is important to note that there is a lot of other equipment being used and maintained by SCTA and is included on the PADOT Capital Planning Tool for tracking purposes, but the dollar values are below the $50,000 level for the TAM Plan to include. SCTA still does evaluate all equipment and records the condition rating to PADOT. All of the equipment listed in Appendix B is maintained in accordance with the OEM recommendations.

PERFORMANCE TARGETS

SCTA has traditionally followed the life cycle management practices, whether it was historically RRTA or BARTA as separate agencies. This practice has generally followed the FTA Useful Life criteria as contained in the FTA Grant Management Circular 5010, especially for revenue vehicles. This basic principle has governed how funds have been programmed each year on the Transportation Improvement Program (TIP) at the four and twelve year levels based on anticipated funding levels. To ensure that the reliability of the fleet, equipment and facilities, SCTA uses a data driven approach to maintenance to identify performance issues, deploy resources efficiently, and improve maintenance procedures.

A. Vehicles

As with most transit systems, one of the common measures of performance, particularly with the revenue fleet, is miles between roadcalls. The number of major and minor roadcalls is required to be tracked by the FTA for the NTD report. In accordance with the NTD, a major maintenance

system failure prevents a vehicle from completing or starting a scheduled revenue trip because actual movement is limited or because of safety concerns. Examples of major bus failures include breakdowns of brakes, doors, engine cooling systems, steering, axles, and suspensions. SCTA does follow this definition in recording major roadcalls.

For other mechanical system failures, SCTA again follows the NTD definition which includes anything that can prevent a vehicles from completing or starting a scheduled revenue trip even though the vehicle is physically able to continue in revenue service without creating a safety concern. This would include breakdowns of the fareboxes, wheelchair lifts, heating, air conditioning, and AVL systems.

Based on these definitions, SCTA has tracked performance of both fleets in terms of roadcalls per revenue mile operated. As shown in Appendix G, the historic roadcall rate from FY 2003 to FY 2016 is shown for Lancaster, Reading and combined SCTA. As shown, SCTA has benchmarked the roadcall rates against the national averages derived from the NTD report. Overall, the roadcall performance for SCTA has been somewhat lower than the NTD average due to the higher average age of the fleet. SCTA is currently showing an average age of 9.0 years for FY 2015 while the national average was 6.7 years for FY 2015, the latest the data was available on a national level. The trends clearly show that when the average age of the fleet is around 6.0 years, the roadcall rate improves greatly and usually meets or exceeds the national average.

One of the issues effecting the average age of the fleet stems from larger quantity purchases in the past due to funding availability. In Reading, there are 17 buses purchased in 2005 or 34% of the total bus fleet which have now all reached the 12 year useful life. In the time of funding "earmarks", this was very common, but does place a strain on the system when large quantities reach their useful life at the same time. SCTA has recognized this issue and is attempting to smooth out the purchase of buses to avoid large quantity purchases and to smooth out the funding requirements moving forward in an attempt to maintain a lower average age of the fleet which should improve the performance.

Ideally, to maintain the lowest average age of the fleet, SCTA would need to plan for the replacement of 3.5 buses per year in Lancaster and 4.1 buses per year in Reading. This would keep the average age of both fleets at roughly 6.5 years. For the Reading fleet, the seventeen buses purchased in 2005 are being split into two separate purchases of seven and ten which will separate the deliveries roughly one year apart. Moving forward, further attempts to reduce larger replacement quantities will be analyzed with the goal of improving performance of the fleet and smoothing out the funding requirements each year for vehicle replacements.

Also in terms of performance, SCTA analyzes the trends in breakdowns to identify reoccurring themes or components causing issues. Through routine oil analysis, the performance of the engines can be monitored to identify the potential for major rebuilds or replacements of engines

or transmissions. Identifying the root cause for breakdowns is a guiding principle in evaluating the effectiveness of the preventive maintenance program and for improving the performance measures for reliability.

For the paratransit fleet, SCTA has also been able to perform routine replacements of vehicles at their end of their useful for fleets in Lancaster and Reading. As shown in Appendix A, the average age of the paratransit fleet in Lancaster for FY 2018 is 3.4 years with 21% of the fleet beyond its useful life. This will drop significantly in FY 2019 with the delivery of 3 mini-vans and 16 regular vans by the end of 2018 to an average of 1.8 years by mid-FY 2019 that results in a 0% of the fleet beyond its useful life and results in a SOGR for the paratransit fleet in Lancaster. In Reading, the average age of the paratransit fleet overall is 4.2 years for FY 2018 with 28% of the fleet currently beyond its useful life which includes the vehicles directly operated and the vehicles leased to the private operator. With the expected delivery of 3 mini-vans and 11 regular vans by Summer, 2018, the average age will drop to 2.5 years for FY 2019 and the percentage of vehicles beyond their useful life will drop to 5%. With the planned purchase of 16 vans for Reading during FY 2019, the fleet will reach a state of SOGR by the end of FY 2019 with 0% beyond their useful life.

B. Facilities

As noted earlier, the facilities under SCTA's control are all in relatively good shape with fairly recent renovations to both Operations & Maintenance Facilities and the transit centers were all completed after 2003. A summary of the condition assessment for each facility is as follows:

	Rating
Lancaster Operations & Maintenance Facility	4
Queen Street Station	5
Queen Street Station Parking Garage	4
Reading Operations & Maintenance Facility	3
BARTA Transportation Center	3
BARTA Park-n-Transit Facility	4
Franklin Street Station	5

As a result, SCTA is showing an average facility rating of 4.0 which is above the acceptable level and with the planned improvements noted previously, it is expected that the condition rating for facilities will not change over the TAM horizon period. Therefore, SCTA has set a performance target of 4.0 for this Plan for facilities.

C. Equipment

As shown in Appendix B, there is only piece of equipment that is beyond its useful life, the snow blower. This was purchased in 1997 and leased to the City of Lancaster at no cost for plowing bus routes during severe winter storms of greater than twelve inches. The City maintains the plow and SCTA inspects them to ensure that the maintenance is being performed. Since this equipment does not get used hard or very often throughout a typical winter, even though it is the only piece of equipment beyond its useful life, there are no plans to replace it once it gets to the point when it longer functions. There are three pieces of equipment in Reading that will reach their stated useful life during this TAM horizon period. This includes the in-ground lifts, bus wash, and bus vacuum that will all reach their useful life in during FY 2021, but SCTA will evaluate their condition at that point in time to determine if the life can be extended or not or program funds for their replacement. SCTA has set a target performance level of 3 based on the current condition of all the equipment.

IV. ANALYTICAL PROCESSES FOR INVESTMENT NEEDS

A by-product of the merger of RRTA and BARTA was an in-depth analysis of the capital needs of both systems over the next twenty-five year period. This was important for determining the funding levels needed to reach a "State of good repair" for both systems and more important, what is needed to maintain a SOGR. As noted before, SCTA is the funding recipient for the two urbanized areas and therefore must track the funding received separately for each area. Initially, SCTA generally based the capital needs on the expected useful life of the vehicles, equipment, and facilities for planning funding needs, combined with the current level of funding being received from FTA for each urbanized area. For the most part, the Lancaster Urbanized Area receives a total of $4.9 Million from the FTA for both 5307 urbanized formula funds and 5339 Bus and Bus Facility Funding while the Reading Urbanized Area receives $3.8 Million from the same sources. However, the Reading Urbanized Area has historically flexed nearly $1 Million per year to transit from Urban Highway funds or lately from available CMAQ funds for the area. This additional funding makes the two urbanized areas nearly identical in funding each year.

Using the chart developed from the merger for capital needs, SCTA forecasted the funding needs to achieve a SOGR over the next 25 years and showed the funding shortfall each year using flat funding from the FTA. Although the financial guidance issued for the development of the TIP suggests using a growth factor for funding, past experience has shown that funding has not grown for either urbanized area the last few years and SCTA does not expect that trend to change any time soon. It should be noted that SCTA is fortunate to receive a high level of operating funds from PADOT that has resulted in SCTA being able to devote its federal funds mainly towards capital needs rather than operation of the services. This has allowed the long term prognosis for capital funding to be sufficient to meet the immediate needs in both urbanized areas, at least for the next four years. Also, due to state capital funding, SCTA is able to leverage the federal funds it receives and use state funding for smaller purchases under $50,000.

The Long Range Capital Plan as shown in Appendix J for both urbanized areas shows that SCTA can achieve a SOGR for the next 25 years even based on the no growth funding scenario at the federal level. The charts were based on current levels of funding received for FFY 2017 for both urbanized areas and assumes flat funding over the entire time period, while the cost of vehicles is based on an average 3% annual growth rate. Based on replacement of assets on the prescribed Useful Life Benchmark (ULB), SCTA would appear to be able to have sufficient funding to meet the capital replacements needs for the next 25 years. Any reductions in funding from the current levels would jeopardize SCTA's ability to reach SOGR. This also assumes PADOT continues to provide the current level of operating funds annually needed to support service. In any case, it is still important to prioritize the needs of the system in case funding would fall short in either urbanized area.

In developing the prioritization for asset replacements, SCTA, as a small system, generally has used the "top down" approach to identify the immediate and short-term needs of the system. The

main focus is to ensure that the service on the street is not compromised or unsafe to operate. As part of this, SCTA evaluates the risk assessment of the assets related to failure that may lead to an unsafe or significant performance impact. Since SCTA is a small system, there are no multiple levels of management for determining needs from the bottom up. It is also the focus of SCTA to evaluate the need for asset replacement or new technology in terms of reducing on-going operating costs. For example, the use of hybrid electric technology has reduced fuel consumption by 30% or the use of solar panels has reduced electric bills by 50% at the Lancaster Operations Center. SCTA utilizes an annual process for evaluating asset needs as part of the budget process and development of the TIP for each urbanized area. Generally, a meeting of upper management identifies the annual needs for capital projects with an emphasis on revenue vehicle replacements and facility needs depending on available funding from the annual 5307 apportionment with less costly projects included in the annual state capital application for funding. The annual list of projects is then reviewed and approved by the SCTA Board of Directors.

While SCTA has developed a 25 year plan for capital improvements, the next four year period will be the main focus of the prioritization of projects as this coincides with first four years of the TIP for the time period covering FY 2018 to FY 2022. As shown in Appendix K, the revenue vehicle replacement needs for fixed-route and paratransit are both programmed as well as the need for a facility expansion in Reading to increase the bus storage capacity under roof. This expansion project will further protect the revenue vehicle fleet and is being designed to reduce on-going energy needs with the use of waste-oil burners and skylights throughout to reduce lighting needs. Other projects also include increasing the security of the Lancaster Operations Center and increasing the use of solar panels to further reduce energy consumption.

One of the most important factors for achieving a SOGR is making sound investment decisions for replacing or rehabilitating vehicles, equipment and facilities based on an analytical process that utilizes available data and performance of the asset. This is particularly important in light of available limited funding each fiscal year. In general, it is the system-wide measures of performance that are of greatest importance from the prospective of reliable service for the public for all services. SCTA recognizes that no one performance measure has all of the desired attributes, and many common and useful measures have one or more decidedly undesirable attributes.

In considering whether to replace an asset, SCTA will make an evaluation based on three questions:

1. How the asset helps SCTA achieve its performance goals;
2. How performance varies as the asset ages and/or deteriorates; and
3. What the impact on performance would be if the asset failed or was removed from service.

To answer these questions, SCTA will use at least one key measure for each asset type and using common measures across types where possible. A deciding factor in selecting measures for supporting resource allocation is feasibility – a measure is useful only to the extent that it is cost-effective to quantify it. For example, SCTA currently measures mean distance between roadcalls on a monthly basis for the fleet which can then be tracked as it relates to the age of the vehicle. This in turn can be translated into excess hours of delay and the resulting impact on customers. SCTA will then use this data to evaluate the need to either replace or rehabilitate a vehicle. While funding is always an issue, as a vehicle ages it is common knowledge and experience that the cost of maintenance increases and reliability of the vehicle decreases. In evaluating and analyzing the data, SCTA will consider the following objectives on whether to replace or rehabilitate:

- Reducing costs
- Reducing breakdowns/failures of an asset
- Improving safety
- Increasing mobility
- Improving the quality of service
- Reducing emissions
- Addressing environmental justice and equity concerns
- Improving the environment
- Increasing the mode share of transit
- Reducing travel times

One of the performance factors commonly used on all classes of assets is the stated useful life and the age of the asset. In order to standardize this process for evaluating and prioritizing the need to replace or rehabilitate, SCTA will utilize the following seven steps:

1. Collect data
2. Analyze asset condition and performance
3. Generate rehabilitation/replacement alternatives
4. Define investment scenarios
5. Prioritize projects
6. Develop investment plan
7. Perform the work

In terms of data collection, SCTA currently tracks mileage for all vehicles, revenue and non-revenue on a regular basis every time a vehicle is fueled and produces a monthly performance report. Both the percentage of useful life remaining in relation to total miles operated is tracked on an annual basis and used to evaluate the need for replacement or rehabilitation. For the revenue fleet, SCTA also performs engine oil analysis to assist in the evaluating the performance of the engine and potential need for rehabilitation depending on the age and mileage. For equipment and facilities, the basic condition reporting system is used along with the results from

routine inspections, preventive maintenance reports, and age in relation to remaining service life are key factors in evaluating the need to replace or rehabilitate an asset. SCTA generally follows the manufacturer's guidance on recommended maintenance intervals and expected useful life.

Once the data is collected, it is then important for SCTA to evaluate the asset condition and performance. Asset availability provides a valuable measure for communicating user impacts for assets, such as mean distance between roadcalls. This is used to then calculate the excess hours of delay for customers from a vehicle breakdown which is also used to evaluate the performance of a vehicle.

Traditionally, SCTA has developed a twenty-five year long range plan for capital improvements needed to reach a state of good repair. The plan is based on established useful life parameters for vehicles, equipment and facilities based on current levels of funding. A separate listing for each service area has been developed in order to properly account for the funding received for each urbanized area. Since SCTA does serve two distinct urbanized areas, namely the Lancaster Urbanized Area and the Reading Urbanized Area, it must be able to demonstrate that the respective funding is only allocated and used within the respective urbanized areas. The twenty-five year plan was also developed using a flat funding scenario from the FTA which has actually been the case for the last few years with little real difference in the funding levels.

As noted earlier, SCTA has placed priority on the provision of service for the public that results in revenue vehicle replacements and/or rehabilitation being given the highest priority. The twenty-five year plan reflects this priority, especially in the event that funding would be reduced at the federal level. In looking at the first four years of the capital improvement plan shown in Appendix L, SCTA will be able to achieve the goal of replacing revenue vehicles that will be beyond their useful life even under the flat funding scenario. It is important to note that SCTA will adjust priorities, if needed, to address any asset that may pose an identified unacceptable safety risk. At present, SCTA does not have any assets that would fall into this category.

It should also be noted that in terms of available funding, the Lancaster Urbanized Area (LATS) receives roughly $1 Million more in annual appropriations than the Reading Urbanized Area (RATS) due to the higher population level even though the levels of transit service are slightly higher in Reading service area. However, the RATS MPO made the decision when SAFTEA-LU to flex nearly $1 Million a year in STU funds to transit for vehicle replacements. This changed when the FAST Act passed and SCTA was requested to switch STU funds for CMAQ funds to provide more funding flexibility for the MPO for highway projects. As a result, both urbanized areas receive nearly the same level of funding from the FTA annually for service and capital needs.

To further plan for the replacement of revenue vehicles, SCTA has made a conscience effort to minimize "lump" purchases of vehicles to more effectively utilize available funding. As with most transit systems, there was an influx of capital funding in the early to mid-1970's when the

systems first became public that resulted in the purchase of larger quantities of vehicles in order to preserve service. This was also the case for facilities when many new transit facilities were constructed. Over time, these lump purchases continued through the availability of "earmarks" at the federal level that both Lancaster and Reading were able to secure to keep the fleets up to date. For example, in Lancaster, there was an initial purchase of sixteen buses, while in Reading, the initial purchase was seventeen buses in the late 1970's. With current funding levels and "earmarks" no longer available, it has become extremely difficult to fund such large purchases and still provide for the replacement or rehabilitation of other assets. As a result, SCTA has made a conscience effort to break up these large lump purchases by dividing the delivery of vehicles to spread out the replacement for future years. For Reading, this was just recently done in 2018 with the purchase of ten buses with the deliveries being divided up into five buses being delivered four months apart. Ideally, SCTA would need sufficient funding for roughly 3.5 buses per year in Lancaster and 4.2 buses per year in Reading to maintain an acceptable average age of the fleet of six years. From a funding standpoint based on the current price of hybrid-electric buses, SCTA will need to program roughly $2.3 Million in Lancaster and $2.7 Million in Reading from its annual appropriations from the FTA or a little over half of the current allocation of federal funding dedicated to bus purchases.

For the paratransit fleet, SCTA owns 130 accessible vans with 73 in Lancaster and 60 in Reading with a useful life of five years. This would result in SCTA needing to replace fourteen vehicles per year in Lancaster and twelve vehicles per year in Reading. Based on current costs, SCTA will need to program roughly $1 Million per year in Lancaster and $900,000 per year in Reading for paratransit vehicle replacements in order to keep the fleet at an acceptable average age.

As shown in Figure 1 below, the total annual apportionment of 5307 and 5339 funds amounts to $4,969,930 for Lancaster and $3,907,997 for Reading, plus the CMAQ flex that Reading receives of $1 Million annually from the Reading MPO for vehicle replacements.

Figure 1. SCTA Annual Federal Funding

FFY2017	Lancaster	Reading
5307	$4,514,332	$3,547,792
5339	$ 455,598	$ 360,205
CMAQ Flex		$1,000,000
TOTAL	$4,969,930	$4,907,997
Annual Bus Funding	($2,300,000)	($2,700,000)
Annual Van Funding	($1,000,000)	($ 900,000)
Annual ADA Funding	($ 451,433)	($ 354,779)
BALANCE	$1,218,497	$ 953,218

The figures above are based on the current levels of service in both communities in terms of vehicle requirements. This means that any large asset needs beyond revenue vehicles will be difficult to finance without securing any additional special funding that may become available at the federal level. Fortunately, the operations and maintenance facilities in both service areas were renovated in 2005 in Reading and 2010 in Lancaster. Due to receiving a special LO/NO grant in 2016, SCTA was able to program funds for a facility expansion project in Reading to double the size of vehicle storage to enable nearly the entire fleet to be under roof during inclement weather. This project is expected to begin in mid-2018 and be completed by April, 2019 and will include some upgrades to the existing infrastructure, including some energy efficiency improvements.

In Lancaster, one of the major remaining asset needs is for a vehicle storage facility for the shared ride fleet. This service is currently contracted out to a private operator, but the fleet is stored outdoors as the Contractor leases a facility for office, maintenance, and vehicle parking. The same Contractor also provides some service in the Reading area too for SCTA that supplements the shared ride service with 20 vehicles leased by SCTA to the private operator. With the merger and integration of the paratransit service software, Ecolane, this provides SCTA increased ability to provide service between the two service areas. The construction of a facility would eliminate lease payments for both services and provide the protection for the 90 plus vehicles being leased to the private operator. Depending on land costs and design, SCTA estimates that such a facility may cost in the range of $6-8 Million for an estimated 30,000 square foot facility. The feasibility of this facility is currently being explored with a possible decision by the end of 2018.

As noted earlier, SCTA also relies on PADOT to provide a major portion of the non-federal local match for capital projects. While PADOT has been able to meet the funding needs of SCTA and public transit in PA because of the passage of Act 89 in 2015, one of the provisions for funding is set to expire in 2020 with no replacement funding being considered at present, so reduced state funding in the future may be a real scenario. However, SCTA has received additional state funding under the 5310 program for the routine replacement of paratransit vehicles that helps reduce the burden on SCTA's other federal revenue sources. The funding priorities for the next four years for the Lancaster Urbanized Area TIP and the Reading Urbanized Area TIP are shown in Appendix K.

Based on current needs and priorities, as noted previously, SCTA has relied on its long range twenty five year capital improvement plan (Appendix J). This plan was based on the need for revenue vehicle replacements and projected facility and equipment needs for rehabilitation and/or replacement depending on the asset and condition rating. As shown, even with flat federal funding projected over this time period, the Lancaster division appears to receive adequate funding to achieve a SOGR. This is nearly the same case for the Reading division with the exception of a few out years where the projected demand exceeds available funding, but there is still adequate funding for revenue vehicle replacements that are the priority for service. This

capital plan will be updated every two years to match the development of the TIP for each urbanized area. To reflect these potential changes in funding and needs, SCTA will update the TAM Plan every four years, as required.

V. PROJECT BASED PRIORITIZATION

One of the important factors in the management of assets is considering whether to replace an asset. As part of this decision-making process, it is useful to address three questions:

1. How the asset helps SCTA achieve its performance goals.
2. How performance varies as the asset age and/or deteriorates.
3. What the impact on performance would be id the asset failed or was removed from service.

In general, it is the system-wide measure of performance that are the greatest importance from a perspective of the transit operator, namely SCTA. No one performance measure has all of the desired attributes, and many common and useful measures have one or more decidedly undesirable attributes. SCTA recognizes that selecting performance measures for resource allocation is a balancing act.

Research shows that there are generally two rules of thumb in selecting performance measures that are: leading versus lagging indicators and outcome versus outputs. A leading indicator provides information on where a system is headed, while a lagging indicator reflects where it has been. Leading indicators of a transit systems state of good repair include the amount invested in the system and the percentage of assets in excellent condition. A measure such as mean distance to failure is a lagging indicator in that the value of the measure at a given point is the product of many maintenance and operating decisions made over time, and decisions made today will not result in immediate changes to this measure. The second rule of thumb that measures of outcomes are generally preferred measures of outputs. This is certainly true, but outcome measures, such as passenger boardings or on-time performance, are often more difficult to measure and less amenable to predictions of future conditions. The deciding factor in selecting measures for supporting resource allocation is feasibility – a measure is useful only to the extent that it is cost-effective to quantify it.

SCTA has historically followed the general principles of using the asset's useful life as the main priority for determining when to replace or rehabilitate an asset and budget accordingly. For example, the accumulated mileage on a vehicle is just as important as the overall age in relation to it's useful life. This is particularly important when funding is limited and vehicles cannot all be replaced due to just a useful life measure. SCTA uses seven steps in setting priorities in making the decision to rehabilitate or replace an asset as follows:

1. Collect Data
2. Analyze Asset Condition and Performance
3. Generate rehabilitation/replacement alternatives
4. Define Investment Scenarios
5. Prioritize Projects

6. Develop Investment Plan
7. Perform the Work

For prioritizing vehicles, the data collection is more straight forward as the Maintenance Department tracks the performance of each vehicle and all maintenance performed on each vehicle. Data collection for equipment and facilities is based on scheduled preventive maintenance activities in accordance with the OEM's recommended schedule. Performance measures for facilities in particular, include an assessment of the various sub-components and their condition rating and the useful life established by the OEM. For example, a sub-component of a facility would be the condition of the HVAC system in terms of useful life, annual maintenance program, and actual performance; ie., the number of times unscheduled repairs are required. At a minimum, SCTA characterizes all physical assets based on their condition on a good/fair/poor scale, where an asset in poor condition is one that is at or near the end of its service life, required immediate rehabilitation or replacement, or is deemed to be in poor condition based on its inspection. As recommended, SCTA will calculate the user cost for assets that can impact service performance. This is particularly important since the failure to properly maintain an asset can result in premature failure and drive up future costs. SCTA also reviews the availability of assets in terms of gauging performance, such as the availability of the elevators at its parking garages or the amount of time a vehicle may be out of service. These are valuable measures for communicating user impacts for assets and the effects on service levels and quality of service.

The third step in the process is evaluating assets in terms of rehabilitation or replacement alternatives. SCTA first relies on the manufacturer's guidelines on recommended maintenance and expected life in making such a decision. It is not cost-effective to rehabilitate an asset that may be at or exceed its useful life. However, in times of limited funding, rehabilitation may be the best alternative to maintain service and generally results in extending the life of an asset and reducing operating costs. For vehicles, it is commonly recognized that the older the vehicle is, the higher the costs are to operate and the less dependable it becomes compared to a newer vehicles. While it is very difficult to develop a policy that can be applied to every class of assets in terms of rehabilitation versus replacement, SCTA will consider several factors in making a decision. Service reliability, technology improvements, available funding and improving the quality of service all are considered.

The fourth step is developing potential funding scenarios for a capital improvement program to achieve a state of good repair. While the main focus of the TAM Plan is a four year horizon to match the TIP, as noted earlier, SCTA has developed a twenty-five year capital improvement program that includes all the assets under its umbrella. This scenario is based on the current level of federal funds currently received for both the Lancaster and Reading Urbanized Areas and projected out under a conservative "no growth" scenario. It should be noted that this scenario is not fiscally constrained in order to show the potential funding shortfalls that may

occur during this time period. This is very useful for SCTA in order to properly plan for either rehabilitating or replacing an asset. As shown, this will be the case for the Reading service area within the four year horizon as there is a potential funding shortfall of nearly two million dollars due to the number of buses that will reaching their useful life and in need of replacement. There is a potential for SCTA to delay a few projects on the capital improvement list the last two years pending on the performance measures for those assets in two years. For Lancaster, the funding levels are sufficient for the planned asset improvements during the next four years, including showing the potential for a surplus of funds that can be allocated to future years within the FTA regulations. Unfortunately, as previously noted, SCTA cannot co-mingle funds from the two separate urbanized areas.

In setting priorities for selecting which assets are rehabilitated or replaced, SCTA will review the performance of the assets, how far along the scoping is of the project, the timing of the project, the benefits to the customers, and the funding needed in determining which projects are completed. While there are several tools and processes available in the industry for determining and weighing priorities, it is generally felt that SCTA being a smaller transit system, keeping this process more simple and more subjective and applied to the following questions:

1. Are the projects priorities consistent with the scenario defined previously?
2. Do the resulting priorities match decision makers expectations concerning how funds should be allocated?
3. Do the conditions and performance predicted given the expected budget allocation meet SCTA's performance targets?
4. Are there groups of projects with similar priorities?
5. Are certain assets or activities systematically given low priority?

This is basically the process SCTA has followed in developing the four year TIP with emphasis on being able to replace vehicles and upgrades to systems and equipment to improve efficiency and lower costs. A priority has also been placed on improving the overall safety and security of services and facilities, plus to improve the quality of service for customers. This is Step 6 of the process in developing an investment plan that is fiscally constrained. A copy of the four year TIP for both service areas is included in Appendix L.

The final step then is for SCTA to perform the work needed based on the priorities. SCTA has taken lead on two successive five year bus procurements with 21 other agencies within Pennsylvania which has greatly reduced the procurement burden. Also, PADOT has procured a state-wide contract for paratransit vehicles that every transit system must use for vehicle replacements in order to receive state capital funding. The Director of Capital & Planning has the responsibility as the lead staff for procurement and implementing the approved priority list of capital projects.

VI. ASSET MANAGEMENT POLICY

For SCTA to be successful in reaching a State of Good Repair, the development and implementation of this plan must have the commitment of not only the staff, but also the Board of Directors. One of the required elements in the regulations is the development and adoption of a Transit Asset Management and State of Good Repair policy that the Board of Directors must adopt. To ensure a good understanding of these requirements, the SCTA Board spent a portion of their annual retreat in 2018 on the TAM requirements and the approach that staff was taking towards compliance with these requirements. The SCTA Board is already familiar with the Authority's capital improvement program which is included in the budget process which lists the Program of Projects for the upcoming fiscal year along with a project listing using state funds. The Board also recognizes the importance of the Executive Director being designated as the "Responsible" Executive for the implementation of the plan.

All Board members were given a copy of the TAM Plan for review before the adoption of the policy and performance targets for FY 2019. A copy of the adopted policy and performance targets is included in Appendix M.

VII. IMPLEMENTATION STRATEGY

Recognizing the importance of having an asset management plan that is focused on achieving SOGR, SCTA has designated the Executive Director as the accountable Executive to implement and maintain the Transit Asset Management Plan. This has generally been the case even prior to the TAM rule with the Executive Director having a hands on role in the development of the capital improvement program and ensuring the current assets are properly maintained in accordance with the Authority's Preventive Maintenance Plan. Being a relatively small transit system, all the Department Heads work together to ensure that the vehicles, facilities, and equipment are maintained properly and are regularly inspected to ensure the expected performance is realized. A majority of the oversight and performance measures are conducted by the Director of Facilities and IT and the Directors of Maintenance at both divisions. SCTA conducts an annual staff meeting related to asset needs and performance measures to improve the delivery of service.

To reinforce that asset management is a priority, all Department head and the Asst. Facility Manager have taken the basic "Transit Asset Management Training: Calculating Performance Measures and Setting Targets" provided by the Transportation Safety Institute through the U.S. Department of Transportation. This ensures everyone has a common understanding of what asset management is and having a common language within SCTA. For the implementation to be successful, SCTA understands the importance of establishing leadership and accountability to manage projects. As noted before, SCTA has designated the Executive Director as the accountable executive and the executive sponsor. The accountable executive as required by FTA is the single identifiable person with the ultimate responsibility for carrying out the safety management system of SCTA, responsibility for carrying out transit asset management practices, and control or direction of the human and capital resources needed to develop and maintain both SCTA's public transportation safety plan and TAM Plan. As the Executive Sponsor, the Executive Director has the responsibility for communicating with the Department Heads, the Board of Directors, and other stakeholders, as needed, to ensure that asset management is getting the attention and resources needed to ensure its success.

Further, SCTA has designated the Director of Capital Improvements & Planning to be the Asset Management Champion to become the "face" of this program and provide a resource for others as obstacle and challenges are confronted. This position, at present, has over 30 years in public transit and has the experience in funding, developing procurement documents, and planning. To complement this responsibility, SCTA has designated the Director of Facilities & IT as the Asset Management Program Manager. Both the Champion and the Program Manager will be responsible for developing and maintaining the Asset Management Plan, communicating with the Executive Team, leading the staff comprising the Asset Management Improvement Team (AMT), and managing internal and external communications regarding the asset management team. The Asset Management Improvement Team at SCTA is comprised of all Department

heads, the Asst. Director of Capital & Planning, and the Asst. Facilities Manager. It is their role to manage across any departmental silos, support the change management initiative, and improve communications between departments. This group is responsible for vetting the asset management plan, leading its implementation, developing lifecycle management plans, compiling and communicating best practices, and supporting all management activities, including capital programming, operations and maintenance budgeting.

SCTA had the Asset Management Team take the Self –Assessment Tool developed by FTA to determine the level of asset management maturity within the Authority. As contained in the Transit Asset Management Guide, FTA Report No. 0098, there are five levels of asset management maturity as follows:

Level 1 – At this basic level, an agency has a clear asset management vision. This Includes a policy statement that provides top-down direction regarding asset management expectations, a strategy that outlines the approach for accomplishing the policy, and a plan that details the people, activities, and resources needed for addressing the policy and strategy.

Level 2 – At this level, an agency has one or more asset inventories with condition data that support multiple business processes. All of this data has a clear owner and process for maintaining its integrity.

Level 3 – At this level, an agency can conduct a risk analysis and/or performance assessment to evaluate the assets current performance to evaluate how well the policy and strategy objectives are being met.

Level 4 – At this level, an agency can set priorities among and across all asset classes based on risk performance data. This can inform the development of the capital program and operations and maintenance budget.

Level 5 – At this level, an agency, an agency can use performance modeling and other analytical tools to optimize how funding is allocated across and within asset classes.

This tool also includes an assessment of the Enterprise Level Framework scores in terms of nine business processes related to the awareness of the Asset Management Team's overall knowledge of the process and the Asset Class Level Framework Scores to review the staff's maturity score for each asset class identified in SCTA's inventory. Further, the self assessment tool measured the Enabler Asset Management Scores of the seven categories as shown in Figure 2. Enablers are defined as the supportive processes and activities that form the foundation of a successful asset management improvement program. In this case, the Enablers ensure that the asset management business processes can be successful.

Results of the self assessment of the Asset Management Team were fairly consistent across all four measures contained in the tool. As the Framework Level, the average score was 80.1 for all nine measures with the understanding of "Inventory and Budgeting" receiving the highest score at an average score of 91.8. The lowest average scores were shown for "Condition Assessment & Performance" at 66.7 and "Performance Modeling" at an average score of 63.6. This provides a good indication of areas for training and awareness for the Asset Management Team. The full results are shown below.

FIGURE 2

FRAMEWORK LEVEL SCORING

	Ave. Score
POLICY	81.6
STRATEGY	83.2
BUSINESS PLAN	80.4
INVENTORY	91.8
CONDITION ASSESSMENT & PERF	66.7
LIFECYCLE MANAGEMENT	74.1
CAPITAL PLANNING	87.5
O&M BUDGETING	91.8
PERFORMANCE MODELING	63.6
OVERALL AVERAGE SCORE	80.

The scoring for the "Enabler" portion of the self assessment showed a higher average score of 85.1 for the seven categories of supportive processes and activities that form the foundation of a successful asset management program. The area with the highest average score was for "Information Systems" at 86.0, while the lowest average score was for "Communications" at 73.2. The scores for all categories are shown in Figure 3.

Looking at the scoring by Asset Class for SCTA showed that the overall average score was 71.8, with "Rolling Stock" scoring an average of 80.3 compared to "Equipment" that scored a 67.5 and "Facilities" that scored a 67.7. These results were not surprising as rolling stock s clearly the asset that effects service for the customers and has a higher profile with staff than equipment or facilities. This also represents a good opportunity for further training and awareness with the Asset Management Team.

FIGURE 3

ENABLER'S SCORING

	Ave. Score
INFORMATION SYSTEMS	86.0
ORGANIZATION & LEADERSHIP	75.6
SKILLS & TRAINING	79.9
COMMUNICATIONS	73.2
VALUES & CULTURE	76.9
PROJECT MANAGEMENT	83.7
CONTINUOUS IMPROVEMENT	83.7
TOTAL AVERAGE SCORE	85.1

The last portion of the self-assessment is the Maturity Level which gauges SCTA's level of asset management practice already in place. As previously noted, there are five levels of asset maturity and a complete asset management program will have all levels functioning well. For SCTA's Asset Management Team, the average overall score was 81.2 which shows a good level of understanding by senior staff of the need for a robust asset management program. As shown in Figure 4, the highest average score was at the Level 2 area while the lowest average score was at the Level 3 area.

Overall, the self assessment completed by the Asset Management Team at SCTA shows that there already exists a good understanding and awareness of the need to properly manage the assets of the Authority. This was not surprising because of the experience levels of most of the senior staff with a majority having twenty plus years of experience in public transit. This shows that SCTA's increased level of asset management awareness directly correlates to the potential success of implementing the TAM Plan. It also shows there are areas that can be improved through additional training and education. This baseline is an important measure for SCTA to use as the Plan becomes fully implemented and approved by the Board.

FIGURE 4

SCTA ASSET MANAGEMENT MATURITY LEVEL

	Ave. Score
LEVEL 1 – "I KNOW WHERE I WANT TO BE"	82.3
LEVEL 2- "I KNOW WHAT I HAVE"	89.8
LEVEL 3 – " I KNOW WHERE I AM AGAINST MY OBJECTIVES	73.5
LEVEL 4 - " I USE ASSET LIFECYCLE INFORMATION IN MY BUDGETING PROCESSES	83.5
LEVEL 5 - "I KNOW HOW TO OPTIMALLY MANAGE ACROSS THE LIFECYCLE	76.6
OVERALL AVE. SCORE	81.2

It is recognized that there are three implementation paths that can be followed depending on the Maturity Level of the agency as follows:

#1-Enterprise Driven – This path requires an executive commitment that makes asset management one of the agency's top strategic objectives. It is an enterprise initiative that starts by establishing asset management policies, strategy, and a plan that ensures a well integrated aligned organization. This path uses consistent, up to date and complete asset inventory data to align with the agency's performance management requirements and supports all enterprise level asset management business processes. Staff, at all levels, understand how their jobs support asset management and the agency as a whole is constantly looking for opportunities for improvement.

#2-Asset Class Driven – This path is most likely driven by one or more of the managers of individual asset classes or a department who provides leadership and champions asset management. The focus is less on the enterprise level activities and more on the lifecycle management of individual asset classes. The key to this path is the development of lifecycle management plans for each asset (starting with the most critical assets).

#3-Capital Planning Driven – This path begins asset management improvement in capital planning and programming process. The general approach is to provide systematic

information on asset condition and capital needs required to meet the level of service or performance targets established for the asset condition. The approach to varying degrees establishes a link between condition and reliability performance. This path focuses on providing information on asset condition from a centralized asset inventory in a consistent way across all asset classes. This involves the development of centralized inventory, the application of consistent condition measures across all assets and the use of tools that prioritize all capital needs based on different levels of funding.

Considering the baseline self-assessment scores and the size of SCTA, it is felt that the "Enterprise Driven" implementation path is the most logical choice for SCTA to follow. There is already a focus on asset management and performance measures in place to meet the desired goal of reaching a SOGR within the next three years or sooner. SCTA is already focused on continually improving performance with an emphasis on improving reliability, reducing lifecycle costs for delivering the same level of service and improving customer service.

It will be the responsibility of the Asset Management Program Manager (AMPM), working with the Executive Director, to develop a communication strategy that addresses the interests of each stakeholder group. On an ongoing basis, the AMPM and the AMT should be communicating the key activities, accomplishments, and challenges associated with the asset management improvement program. Important considerations for communicating anything related to the asset management improvement program are as follows:

- The message must be created clearly and with sufficient detail, and must convey integrity and commitment.
- The message must be relevant to the recipient's job and it should be clear how asset management could benefit that staff member.
- Staff must be willing to listen, ask questions, and trust the sender.
- The message must be delivered in a format that is accessible and acceptable to staff.

As previously noted, SCTA is required to utilize software that was developed for PADOT for inventorying and performance of capital assets. This software is simply knows as "PADOT Capital Planning Tool" and is designed for use by PADOT for allocating state capital funds for asset rehabilitation/replacements. SCTA is required to input annually the mileage for vehicles and condition assessments for all assets in the system, plus add new assets as they are placed in service. This tool and SCTA's maintenance software are used together to review the status of assets and related performance.

VIII PLAN ACTIVITIES

A critical part of the TAM Plan implementation is to develop a list of activities for SCTA to perform to meet the priorities and requirements of the Plan. This includes activities that SCTA is required to perform as part of FTA's regulations on an annual basis as follows:

1. Establish Annual Performance Targets for each Asset Class
2. Annual Performance Targets must be approved by SCTA's Executive Director as the named accountable executive.
3. Annual Coordination with both the Lancaster and Reading MPO's on adoption of the Performance Targets.
4. An annual data report to FTA's National Transit Database that reflects the SGR performance targets for the following year and condition information for SCTA's assets.
5. An annual narrative report to the National Transit Database that describes any changes in the condition of SCTA's transit system from previous years to meet the performance targets set in the previous reporting year.

In addition to the required annual activities, SCTA will also perform other activities in support of implementing the TAM Plan. As noted earlier, the TAM Plan is required to include a four year horizon to coincide with the planning cycle for the Transportation Improvement Program (TIP). SCTA is currently going through this process for both urbanized areas for the four year period of FFY2019-2022. The transit portion of the TIP for both urbanized areas was developed by SCTA using the priorities set forth in the TAM Plan in order to achieve a SOGR. The projects listed coincide too with SCTA's twenty-five year capital improvement program and is fiscally constrained in accordance with the guidance issued by USDOT and PADOT for highway and transit funding for this four year period. This is one of the most important activities for the development of the annual performance goals for SCTA and is updated every two years to account for any variations in funding levels and potential changes in asset conditions or priorities for funding.

Since this is the first time that the TAM Plan has been required by FTA, SCTA must also complete other required activities every four years in addition to the four year TIP. It is required that the SCTA Board of Directors review and approve SCTA's TAM Plan and TAM Policy, plus the annual performance measures. The Board approval is slated for action at the June, 2018 Board meeting. Once approved by the SCTA Board, the Plan will be forwarded to the respective MPO's in Lancaster and Reading for adoption which will include the approval of the annual performance goals. This approval by the Technical and Coordinating Committees of both MPOs should be accomplished by September, 2018. Following this initial approval process, SCTA is required to update the overall TAM Plan every four years and will follow the same approval process. The TAM Plan and the annual reporting requirements must be in place by October, 2018, which SCTA is expected to achieve.

In addition to the required activities for the TAM implementation, SCTA has also included other activities in support of the Plan. Based on the Enterprise Level strategy chosen, SCTA will conduct internal activities to strengthen the implementation of the plan. This includes at a minimum, annual training of SCTA's Asset Management Team on developing and refining performance measures that support achieving SOGR. All the members of the Asset Management Team also completed the on-line training provided by the Transportation Safety Institute, Transit Asset Management Transit Management Training: Calculating Performance Measures and Setting Targets. A certificate of completion is generated by this training course to document the completion.

Further, this effort will also include the Asset Management Team re-taking the self-assessment tool to track individual understanding and scores each year of the initial four year horizon to improve the average sores for each area of the assessment. The goal is that each member of the Asset Management Team achieve a 90+ average score for all facets of asset management. This process would occur every January prior to the budget process. Following the self-assessments, the Asset Management Team will meet quarterly to review and assess performance goals and status of projects, plus develop the performance goals for the following year. It will be important that condition assessment of all assets be completed prior to the setting of the performance goals. Based on funding requirements from PADOT, the annual asset condition ratings will need to be completed by the end of March each year in order to apply for capital funding from PADOT for the next fiscal year. It is anticipated that the State Capital Planning Tool will produce the reports that will show assets ready for replacement to further strengthen this process.

SCTA will rely on the Director of Capital Improvements & Planning as the TAM Champion to complete the required annual reporting and lead the process for setting annual performance goals for the Executive Director's approval. A timeline of activities is shown in Figure 5 below.

FIGURE 5

TAM PLAN ACTIVITIES

ACTIVITY	MONTH/YEAR
Year 1 – FY 2019	
SCTA Board Approval	June, 2018
MPO Goals and Plan Approval	September, 2018
NTD Reporting Annual Goals	October, 2018
AMT Self Assessment/Training	January, 2019
AMT Project Meeting/Goal Review	February, 2019
Capital Improvement Project Selection	April, 2019
SCTA Board Approval-Performance Goals	June, 2019

Year 2 – FY 2020

MPO Goals Approval	September, 2019
NTD Reporting Annual Goals	October, 2019
AMT Self Assessment/Training	January, 2020
AMT Project Meeting/Goal Review	February, 2020
Capital Improvement Project Selection	April, 2020
TIP Update Process	April, 2020
SCTA Board Approval-Performance Goals	June, 2020

Year 3 – FY 2021

MPO Goals Approval	September, 2020
MPO TIP Update Approval	September, 2020
NTD Reporting Annual Goals	October, 2020
AMT Self Assessment/Training	January, 2021
AMT Project Meeting/Goal Review	February, 2021
Capital Improvement Project Selection	April, 2021
SCTA Board Approval-Performance Goals	June, 2021

Year 4 – FY 2022

MPO Approval	September, 2022
NTD Reporting Annual Goals	October, 2022
AMT Self Assessment/Training	January, 2022
TAM Plan Update Begins	January, 2022
AMT Project Meeting/Goal Review	February, 2022
Capital Improvement Project Selection	April, 2022
SCTA Board Approval Goals & Plan Update	June, 2022

IX. RESOURCES

To ensure that the implementation of the TAM Plan is carried out as intended, it is important that SCTA commit the necessary resources, including personnel, to develop and carry out the Plan. As outlined, SCTA has adequate staff to commit to the successful implementation of the Plan. This includes key staff in the role of the "Champion" of the Plan that is very experienced in dealing with capital improvements and funding to support the Plan. Further, the Director of Facilities and IT will be providing support as the Asset Program Manager which is nearly identical to their current responsibilities. Both of these staff report directly to the Executive Director that also works closely with both positions to ensure that asset management has a high priority within SCTA. It should be noted that both of this primary positions that support the TAM Plan have support staff that are also part of SCTA's Asset Management Team along with remaining Department Heads. An Organizational Chart is shown in Appendix L that shows these resources. A total of eleven management staff or 25% of the administrative staff at SCTA are directly involved in the support of the TAM Plan.

In terms of financial resources, it was noted that the level of federal funding received in both urbanized areas served by SCTA provides the needed capital funds to meet the performance goals. Fortunately, SCTA receives sufficient operating funds from PADOT to meet the current levels of service with federal funds only being used to support ADA complementary services in both communities. This results in 90% of its federal funds being dedicated to capital improvements to support the performance goals of SCTA for meeting SOGR. Also, with SCTA holding a five year contract for bus replacements statewide and PADOT having a statewide contract for paratransit vehicles, the administrative burden of developing and issuing bid specifications for vehicle replacements is greatly reduced for the two biggest on-going capital needs and for meeting the SOGR. SCTA has also in-house experience to develop and obtain all other needed equipment or facilities needs with the current key staff positions.

SCTA also has other resources available to support the TAM Plan and the development of the performance goals. As previously mentioned, PADOT developed a capital planning tool to properly track all asset classes and SCTA is required to use this tool in order to receive funding. The software used by SCTA for its maintenance functions provides for the needed data collection and performance measures for the vehicle fleets and tracks maintenance on equipment in use at SCTA. Together with the record-keeping for facility components by the Director of Facilities & IT, SCTA has the resources needed to provide the data and performance measures in support of implementing the TAM Plan.

X. PLAN UPDATES

As required by the FTA regulations, the TAM Plan is to be monitored, evaluated, and updated as needed, but not more than every four years. As previously noted, SCTA will rely on the Director of Capital Improvements & Planning as the TAM Champion to complete the required annual reporting and lead the process for setting annual performance goals for the Executive Director's approval. This position and the Director of Facilities & IT, as the Asset Program Manager, will be responsible for updating this Plan every four years and securing the needed approvals. As listed under the Activities Section, the performance measures will be monitored throughout the year and any changes to the priorities or significant changes in the asset conditions will be incorporated into the annual capital improvement plan, depending on funding available.

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APPENDIX A

VEHICLE FLEET ROSTERS

RED ROSE TRANSIT AUTHORITY

EQUIPMENT SCHEDULE

Jan. 1, 2018

REVENUE VEHICLES:

VEHICLE NO.	YEAR	MFG.	SERIAL NUMBER	MODEL/ TITLE	LICENSE NO.	SEATING CAPACITY	VALUE	MILEAGE AS OF 7-1-17
T44	2005	Optima	1Z9S2HSS45W216322	AH-28	MT39536	27	$285,000	132,443
T45	2003	Optima	1Z9S2HSS03W216279	AH-28	MT38325	27	$284,000	123,605
T46	2003	Optima	1Z9S2HSS73W216280	AH-28	MT38324	27	$284,000	144,571
171	2006	Gillig	15GGE297861091263	G29E102N4	MT40269	28	$323,170	416,232
172	2006	Gillig	15GGE291X61091264	G29E102N4	MT40270	28	$323,170	404,595
173	2007	Gillig	15GGB291271077773	G29B102N4	MT40582	32	$373,209	470,096
174	2007	Gillig	15GGB291471077774	G29B102N4	MT40583	32	$373,209	525,408
175	2007	Gillig	15GGB291671077775	G29B102N4	MT40584	32	$373,209	509,697
176	2007	Gillig	15GGB291871077776	G29B102N4	MT40585	32	$373,209	506,731
177	2007	Gillig	15GGB291X71077777	G29B102N4	MT40586	32	$373,209	487,222
178	2007	Gillig	15GGB291171077778	G29B102N4	MT40587	32	$373,209	498,323
179	2009	Gillig	15GGB271X91079938	G29B102N4	MT41869	32	$373,209	383,360
180	2009	Gillig	15GGE271391091548	G29B102N4	MT41870	28	$323,170	308,460
181	2009	Gillig	15GGE271591091549	G29B102N4	MT41871	28	$323,170	304,604
182	2010	Gillig	15GGB2716A1176932	G29B102N4	MT43121	28	$373,209	320,266
183	2012	Gillig	15GGD3012C1180795	G30D102N4	MT44180	39	$585,972	239,630
184	2012	Gillig	15GGB3017C1180796	G30B102N4	MT44109	28	$587,000	217,952
185	2013	Gillig	15GGB3019D1181529	G30B102N4	MT44349	32	$599,766	168,070
186	2013	Gillig	15GGB3018D1183949	G30B102N4	MT44930	32	$608,266	170,440
187	2013	Gillig	15GGB3014D1183950	G30B102N4	MT44931	32	$608,266	190,072
188	2015	Gillig	15GGB3013F1187984	G30B102N4	MT46040	32	$642,018	85,476
189	2015	Gillig	15GGB3015F1187895	G30B102N4	MT46038	32	$642,018	89,637
190	2015	Gillig	15GGB3017F1187896	G30B102N4	MT46039	32	$642,018	92,133
191	2015	Gillig	15GGB3019F1187897	G30B102N4	MT46081	32	$642,018	90,508
192	2015	Gillig	15GGB3010F1187898	G30B102N4	MT46054	32	$642,018	89,723
193	2015	Gillig	15GGB3012F1187899	G30B102N4	MT46055	32	$642,018	92,338
194	2015	Gillig	15GGB3015F1187900	G30B102N4	MT46082	32	$642,018	89,074
195	2015	Gillig	15GGB3017F1187901	G30B102N4	MT46083	32	$642,018	82,204
196	2015	Gillig	15GGB3019F1187902	G30B102N4	MT46084	32	$642,018	89,665
197	2015	Gillig	15GGB3010F1187903	G30B102N4	MT46085	32	$642,018	91,335

RED ROSE TRANSIT AUTHORITY
EQUIPMENT SCHEDULE
Jan 1, 2018

VEHICLE NO.	YEAR	MFG.	SERIAL NUMBER	MODEL/ TITLE	LICENSE NO.	SEATING CAPACITY	VALUE	MILEAGE AS OF 7-1-17
REVENUE VEHICLES:								
1601	2016	Gillig	15GGB3015G1188109	G30B102N4	MT6936J	32	$642,370	49,976
1602	2016	Gillig	15GGB3015G1188110	G30B102N4	MT46611	32	$642,370	61,343
1603	2016	Gillig	15GGB3015G1188111	G30B102N4	MT46682	32	$642,370	56,688
1604	2016	Gillig	15GGB3015G1188112	G30B102N4	MT46683	32	$642,370	60,462
1701	2017	Gillig	15GGB301XH3190055	G30B102N4	MT47371	32	$653,320	NIS
1702	2017	Gillig	15GGB3011H3190056	G30B102N4	MT47331	32	$653,320	NIS
1703	2017	Gillig	15GGB3013H3190057	G30B102N4	MT47330	32	$653,320	NIS
1704	2017	Gillig	15GGB3015H3190058	G30B102N4	MT47329	32	$653,320	NIS
1705	2017	Gillig	15GGB3017H3190059	G30B102N4	MT47328	32	$653,320	NIS
1706	2017	Gillig	15GGD3010H3190060	G30D102N4	MT47370	38	$657,268	NIS
1707	2017	Gillig	15GGD3012H3190061	G30D102N4	MT47369	38	$657,268	NIS
1708	2017	Gillig	15GGD3014H3190062	G30D102N4	MT47368	38	$657,268	NIS
PRIVATE PASSENGER VEHICLES:								
Explorer	2007	Ford-49	1FMEU73E67UB07305	XLT	MG0174D	5	$21,000	74,524
Escape	2008	Ford-54	1FMCU92Z48KD64600	XLT	MG516D	5	$16,344	77,281
Escape	2010	Ford-55	1FMCU9C74AKA29310	XLT	MG5362E	5	$16,394	65,913
Escape	2013	Ford-56	1FMCU9GX4EUA39551	XLT	MG7583G	5	$24,407	64,577
NON-REVENUE VEHICLES:								
Truck	2002	GMC-51	1GTHK24052Z109624	56841207101 RE	28918 MG	3	$29,000	60,752
Wrecker	2005	FORD-59	1FTYW90U0TVA06736	49214679703RE	28920MG	2	$110,000	937,659
Truck	2006	FORD-53	1FTSW21596EC74578	F-150	MG0397C	3	$27,000	45,514

RED ROSE TRANSIT AUTHORITY

SHARED RIDE EQUIPMENT SCHEDULE

July, 2017

REVENUE VEHICLES:

VEHICLE NO.	YEAR	MFG.	MODEL/ TITLE	SERIAL NUMBER	LICENSE NO.	SEATING CAPACITY	CARRIER	MILEAGE AS OF 7-1-17	FUNDING SOURCE USED FOR PURCHASE	DATE IN SERVICE (Month/Year)	YEAR TO BE REPLACED
A-22	2009	Dodge	Mini-Van	2DHN44E19R560261	MT42041	5(1W/C)	Easton	192,683	New Freedom	May-09	2015
A-32	2009	Dodge	Mini-Van	2D8HN44E39R560276	MT42544	5(1W/C)	Easton	237,861	Office of Aging	Sep-09	2017
A-33	2009	Dodge	Mini-Van	2D8HN44E79R516829	MT42545	5(1W/C)	Easton	188,592	New Freedom	Sep-09	2017
A-34	2009	Dodge	Mini-Van	2D4RNDE9AR155307	MT42579	5(1W/C)	Easton	209,690	New Freedom	Sep-09	2017
A-47	2012	Ford	Champion	1FDFE4FS2CDA29021	MT42622	12 (4W/C)	Easton	221,395	10-11 1517	Jan-12	2018
A-48	2012	Ford	Champion	1FDFE4FS5CDA29014	MT42623	12 (4W/C)	Easton	179,825	10-11 1517	Jan-12	2018
A-49	2012	Ford	Champion	1FDFE4FS2CDA29018	MT42624	12 (4W/C)	Easton	214,374	10-11 CTC	Feb-12	2018
A-50	2012	Ford	Champion	1FDFE4FS4CDA29019	MT42625	12 (4W/C)	Easton	212,368	10-11 CTC/Sale Funds	Feb-12	2018
A-51	2013	Dodge	Minivan	2C4RDGBG5CR398475	MT44308	5(1 WC)	Easton	128,559	New Freedom	Jan-13	2018
A-52	2013	Ford	Champion	1FDFE4FS1DDA419040	MT44427	10(4 WC)	Easton	175,051	11-12 CTC/Section 1516	May-13	2019
A-53	2013	Ford	Champion	1FDFE4FS1DDA419041	MT44428	10(4 WC)	Easton	162,600	11-12 CTC/Section 1516	May-13	2019
A-54	2013	Ford	Champion	1FDFE4FS1DDA419042	MT44429	10(4 WC)	Easton	159,218	11-12 CTC/Section 1516	May-13	2019
A-55	2013	Ford	Champion	1FDFE4FS1DDA419043	MT44430	10(4 WC)	Easton	122,577	11-12 CTC/Section 1516	May-13	2019
A-56	2013	Ford	Champion	1FDFE4FS1DDA419044	MT44431	10(4 WC)	Easton	138,694	11-12 CTC/Section 1516	May-13	2019
A-57	2013	Ford	Champion	1FDFE4FSS0DDA89056	MT44774	10(4 WC)	Easton	131,766	5310 12-13/ CTC 1516 12-13	Jul-13	2019
A-58	2013	Ford	Champion	1FDFE4FS2DDA89057	MT44790	10(4 WC)	Easton	144,918	5310 12-13/ CTC 1516 12-13	Aug-13	2019
A-59	2013	Ford	Champion	1FDFE4FS4DDA89058	MT44770	10(4 WC)	Easton	181,052	CTC 1516 12-13	Jul-13	2019
A-60	2013	Ford	Champion	1FDFE4FS6DDA89059	MT44771	10(4 WC)	Easton	158,184	CTC 1516 12-13	Jul-13	2019
A-61	2013	Ford	Champion	1FDFE4FS2DDA89060	MT44772	10(4 WC)	Easton	160,836	CTC 1516 12-13/Sale Funds	Aug-13	2019
A-62	2014	Ford	Champion	1FDFE4FS7EDA97320	MT45245	10(4 WC)	Easton	119,213	PA-90-X757/11-12 1514 Bond	Jun-07	2020
A-63	2014	Ford	Champion	1FDFE4FS9EDA97321	MT45246	10(4 WC)	Easton	116,066	PA-90-X757/11-12 1514 Bond	Jun-07	2020
A-64	2014	Ford	Champion	1FDFE4FS0EDA97322	MT45247	10(4 WC)	Easton	18,504	PA-90-X757/11-12 1514 Bond	Jun-07	2020
A-65	2014	Ford	Champion	1FDFE4FS2EDA97323	MT45248	10(4 WC)	Easton	122,286	PA-90-X757/11-12 1514 Bond	Jun-07	2020

SHARED RIDE EQUIPMENT SCHEDULE

July, 2017

VEHICLE NO.	YEAR	MFG.	MODEL/ TITLE	SERIAL NUMBER	LICENSE NO.	SEATING CAPACITY	CARRIER	MILEAGE AS OF 7-1-17	FUNDING SOURCE USED FOR PURCHASE	DATE IN SERVICE (Month/Year)	YEAR TO BE REPLACED
A-66	2014	Ford	Champion	1FDFE4FS4EDA97324	MT45249	10(4 WC)	Easton	102,572	PA-90-X729 & 757 /11-12 1514 Bond		2020
A-67	2014	Ford	Champion	1FDFE4FS6EDA97325	MT45250	10(4 WC)	Easton	107,051	PA-90-X729/11-12 1514 Bond		2020
A-68	2014	Ford	Champion	1FDFE4FS8EDA97326	MT45251	10(4 WC)	Easton	118,262	PA-90-X729/11-12 1514 Bond/12-13 1516 CTC		2020
A-69	2014	Ford	Champion	1FDFE4FSXEDA97327	MT45252	10(4 WC)	Easton	91,607	12-13 1517		2020
A-70	2014	Ford	Champion	1FDFE4FS0EDB13373	MT45394	10(4 WC)	Easton	105,589	13-14 1517		2020
A-71	2014	Ford	Champion	1FDFE4FS2EDB13374	MT45395	10(4 WC)	Easton	109,490	13-14 1516 CTC		2020
A-72	2014	Ford	Champion	1FDFE4FS4EDB13375	MT45396	10(4 WC)	Easton	103,251	13-14 1516 CTC		2020
A-73	2014	Ford	Champion	1FDFE4FS6EDB13376	MT45397	10(4 WC)	Easton	114,574	13-14 1516 CTC		2020
A-74	2014	Ford	Champion	1FDFE4FS8EDB13377	MT45398	10(4 WC)	Easton	86,774	13-14 1516 CTC		2020
A-75	2015	Dodge	Minivan	2C7WDGBG8FR686789	MT45711	5(1 WC)	Easton	93,358			2021
A-76	2015	Dodge	Minivan	2C7WDGBG3FR703465	MT45712	5(1 WC)	Easton	107,183			2021
A-77	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10712	MT46154	10(4 WC)	Easton	54,152			2021
A-78	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10713	MT461047	10(4 WC)	Easton	71,053			2021
A-79	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10714	MT46152	10(4 WC)	Easton	56,471			2021
A-80	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10715	MT46048	10(4 WC)	Easton	69,932			2021
A-81	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10716	MT46049	10(4 WC)	Easton	70,534			2021
A-82	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10717	MT46050	10(4 WC)	Easton	54,855			2021
A-83	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10718	MT46051	10(4 WC)	Easton	60,795			2021
A-84	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10719	MT46153	10(4 WC)	Easton	55,718			2021
A-85	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10720	MT46052	10(4 WC)	Easton	72,366			2021
A-86	2015	Ford	CMC Challenger E450	1FDFE4FS6GDC10721	MT46053	10(4 WC)	Easton	69,865			2021
A-87	2016	Ford	CMC Challenger E450	1FDFE4F58GDC566607	MT46937	10(4 WC)	Easton	22,837			2022
A-88	2016	Ford	CMC Challenger E450	1FDFE4F58GDC566608	MT46936	10(4 WC)	Easton	31,794			2022
A-89	2016	Ford	CMC Challenger E450	1FDFE4F58GDC566609	MT46943	10(4 WC)	Easton	37,033			2022
A-90	2016	Ford	CMC Challenger E450	1FDFE4F58GDC566610	MT46938	10(4 WC)	Easton	32,381			2022
A-91	2016	Ford	CMC Challenger E450	1FDFE4F58GDC566611	MT46933	10(4 WC)	Easton	28,723			2022
A-92	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56612	MT46841	10(4 WC)	Easton	34,803			2022
A-93	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56613	MT46836	10(4 WC)	Easton	38,467			2022
A-94	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56614	MT46935	10(4 WC)	Easton	22,786			2022
A-95	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56615	MT46909	10(4 WC)	Easton	31,299			2022
A-96	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56616	MT46835	10(4 WC)	Easton	42,167			2022
A-97	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56617	MT46834	10(4 WC)	Easton	46,877			2022
A-98	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56618	MT46934	10(4 WC)	Easton	27,688			2022

RED ROSE TRANSIT AUTHORITY

SHARED RIDE EQUIPMENT SCHEDULE

July, 2017

VEHICLE NO.	YEAR	MFG.	MODEL/ TITLE	SERIAL NUMBER	LICENSE NO.	SEATING CAPACITY	CARRIER	MILEAGE AS OF 7-1-17	FUNDING SOURCE USED FOR PURCHASE	DATE IN SERVICE (Month/Year)	YEAR TO BE REPLACED
A-99	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56619	MT46840	10(4 WC)	Easton	43,389			2022
A-100	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56620	MT46942	10(4 WC)	Easton	34,625			2022
A-101	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56621	MT46926	10(4 WC)	Easton	29,894			2022
A-102	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56622	MT46839	10(4 WC)	Easton	41,766			2022
A-103	2016	Ford	CMC Challenger E450	1FDFE4FS1GDC56623	MT46838	10(4 WC)	Easton	34,063			2022
A-104	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC20672	MT47062	10(4 WC)	Easton	15,925			2023
A-105	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC20673	MT47060	10(4 WC)	Easton	18,747			2023
A-106	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC20674	MT47059	10(4 WC)	Easton	14,433			2023
A-107	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC20675	MT47058	10(4 WC)	Easton	10,997			2023
A-108	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC18999	MT47061	10(4 WC)	Easton	17,014			2023
A-109	2017	Ford	CMC Challenger E450	1FDFE4FS2HDC18000	MT47111	10(4 WC)	Easton	22,395			2023
A-110	2017	Ford	CMC Challenger E450	1FDFE4FSXHDC20676	MT47194	10(4 WC)	Easton	7,475			2023
A-111	2017	Ford	CMC Challenger E450	1FDFE4FSXHDC20677	MT47193	10(4 WC)	Easton	11,363			2023
A-112	2017	Ford	CMC Challenger E450	1FDFE4FSXHDC20678	MT47244	10(4 WC)	Easton	4,838			2023
A-113	2017	Ford	CMC Challenger E450	1FDFE4FSXHDC20679	MT47192	10(4 WC)	Easton	12,803			2023
A-114	2017	Ford	CMC Challenger E450	1FDFE4FSXHDC20680	MT47191	10(4 WC)	Easton	10,846			2023
				14 Passenger Vehicles	61						
				Minivans	12						
Myers/Steve-Excel/VehicleInventory/Srequipsked				Total Vehicles	73						

BARTA OWNED FIXED ROUTE BUSES

VEH #	YEAR	MAKE	MODEL	VIN #	LICENSE #	LGTH	LIFT	FUEL	PSGRS	COST-NEW	7/1/2017 ODOMETER	YEARS USEFUL LIFE	FY 2016 Odometer	FY 2017 Mileage
0533	2005	Gillig	BRT 35 LF	15GGB291551076744	MT39372	35 ft	Y	DF	36	$ 283,259	**403,705**	12	371,146	32559
0534	2005	Gillig	BRT 35 LF	15GGB291751076745	MT39373	35 ft	Y	DF	36	$ 283,259	**375,961**	12	345,663	30298
0535	2005	Gillig	BRT 35 LF	15GGB291951076746	MT39374	35 ft	Y	DF	36	$ 283,259	**384,802**	12	353,478	31324
0536	2005	Gillig	BRT 35 LF	15GGB291051076747	MT39375	35 ft	Y	DF	36	$ 283,259	**520,443**	12	487,305	33138
0537	2005	Gillig	BRT 35 LF	15GGB291251076748	MT39376	35 ft	Y	DF	36	$ 283,259	**411,225**	12	380,270	30955
0538	2005	Gillig	BRT 35 LF	15GGB291451076749	MT39377	35 ft	Y	DF	36	$ 283,259	**395,727**	12	370,921	24806
0539	2005	Gillig	BRT 35 LF	15GGB291051076750	MT39378	35 ft	Y	DF	36	$ 283,259	**408,062**	12	380,849	27213
0540	2005	Gillig	BRT 35 LF	15GGB291251076751	MT39379	35 ft	Y	DF	36	$ 283,259	**370,548**	12	340,305	30243
0541	2005	Gillig	BRT 35 LF	15GGB291451076752	MT39380	35 ft	Y	DF	36	$ 283,259	**406,456**	12	377,096	29360
0542	2005	Gillig	BRT 35 LF	15GGB291651076753	MT39381	35 ft	Y	DF	36	$ 283,259	**400,800**	12	370,916	29884
0543	2005	Gillig	BRT 35 LF	15GGB291851076754	MT39382	35 ft	Y	DF	36	$ 283,259	**401,456**	12	370,303	31153
0544	2005	Gillig	BRT 35 LF	15GGB291X51076755	MT39383	35 ft	Y	DF	36	$ 283,259	**393,619**	12	359,701	33918
0545	2005	Gillig	BRT 35 LF	15GGB291151076756	MT39384	35 ft	Y	DF	36	$ 283,259	**399,975**	12	375,363	24612
0546	2005	Gillig	BRT 35 LF	15GGB291351076757	MT39385	35 ft	Y	DF	36	$ 283,259	**405,777**	12	377,295	28482
0547	2005	Gillig	BRT 35 LF	15GGB291551076758	MT39386	35 ft	Y	DF	36	$ 283,259	**400,254**	12	373,130	27124
0548	2005	Gillig	BRT 35 LF	15GGB291751076759	MT39387	35 ft	Y	DF	36	$ 283,259	**403,117**	12	376,071	27046
0549	2005	Gillig	BRT 35 LF	15GGB291351076760	MT39388	35 ft	Y	DF	36	$ 283,259	**391,022**	12	368,282	22740
0750	2007	Gillig	BRT 35 LF	15GGB291871077700	MT40493	35 ft	Y	DF	36	$ 297,120	**366,230**	12	333,638	32592
0751	2007	Gillig	BRT 35 LF	15GGB291X71077701	MT40494	35 ft	Y	DF	36	$ 297,120	**365,786**	12	333,097	32689
0752	2007	Gillig	BRT 35 LF	15GGB291171077702	MT40495	35 ft	Y	DF	36	$ 297,120	**362,096**	12	330,856	31240
0753	2007	Gillig	BRT 35 LF	15GGB291371077703	MT40496	35 ft	Y	DF	36	$ 297,120	**375,269**	12	343,619	31650
0754	2007	Gillig	BRT 35 LF	15GGB291571077704	MT40497	35 ft	Y	DF	36	$ 297,120	**371,394**	12	340,813	30581
0755	2007	Gillig	BRT 35 LF	15GGB291771077705	MT40498	35 ft	Y	DF	36	$ 297,120	**385,701**	12	352,079	33622
0756	2007	Gillig	BRT 35 LF	15GGB291971077706	MT40499	35 ft	Y	DF	36	$ 297,120	**360,832**	12	330,438	30394
0857	2008	Gillig	BRT 35 LF	15GGB271781079717	MT41520	35 ft	Y	DF	32	$ 319,452	**295,934**	12	271,819	24115
0858	2008	Gillig	BRT 35 LF	15GGB271981079718	MT41521	35 ft	Y	DF	32	$ 319,452	**287,399**	12	264,633	22766
0859	2008	Gillig	BRT 35 LF	15GGB271081079719	MT41522	35 ft	Y	DF	32	$ 319,452	**291,595**	12	258,521	33074
0860	2008	Gillig	BRT 35 LF	15GGB271781079720	MT41523	35 ft	Y	DF	32	$ 319,452	**299,257**	12	265,144	34113
0861	2008	Gillig	BRT 35 LF	15GGB271981079721	MT41524	35 ft	Y	DF	32	$ 319,452	**293,219**	12	269,616	23603
0862	2008	Gillig	BRT 35 LF	15GGB271081079722	MT41527	35 ft	Y	DF	32	$ 319,452	**292,279**	12	262,066	30213
0881	2008	Gillig	G27D102N4	15GGD271X81079723	MT41525	40 ft	Y	DF	39	$ 325,169	**315,709**	12	283,595	32114
0882	2008	Gillig	G27D102N4	15GGD271181079724	MT41526	40 ft	Y	DF	39	$ 325,169	**305,923**	12	280,989	24934

BARTA OWNED FIXED ROUTE BUSES

VEH #	YEAR	MAKE	MODEL	VIN #	LICENSE #	LGTH	LIFT	FUEL	PSGRS	COST-NEW	7/1/2017 ODOMETER	YEARS USEFUL LIFE	FY 2016 Odometer	FY 2017 Mileage
VEH #	YEAR	MAKE	MODEL	VIN #	LICENSE #	LGTH	LIFT	FUEL	PSGRS	COST-NEW	ODOMETER	USEFUL LIFE		
0983	2009	Gillig	G27D102N4	15GGD271491177325	MT42466	40 ft	Y	DF	39	$ 344,967	**287,651**	12	257,971	29680
0984	2009	Gillig	G27D102N4	15GGD271691177326	MT42465	40 ft	Y	DF	39	$ 344,967	**305,541**	12	271,434	34107
0991	2009	Gillig	G30D102N4	15GGD301691177004	MT42006	40 ft	Y	HE	39	$ 514,001	**370,353**	12	340,142	30211
0992	2009	Gillig	G30D102N4	15GGD301891177005	MT42007	40 ft	Y	HE	39	$ 514,001	**260,193**	12	233,601	26592
0993	2009	Gillig	G30D102N4	15GGD301X91177006	MT42008	40 ft	Y	HE	39	$ 514,001	**252,681**	12	222,429	30252
0994	2009	Gillig	G30D102N4	15GGD301191177007	MT42009	40 ft	Y	HE	39	$ 514,001	**238,626**	12	205,621	33005
0995	2009	Gillig	G30D102N4	15GGD301391177008	MT42010	40 ft	Y	HE	39	$ 514,001	**223,577**	12	190,330	33247
1096	2010	Gillig	G30D102N4	15GGD3015A1177869	MT43063	40 ft.	Y	HE	39	$ 539,236	**221,065**	12	194,469	26596
1097	2010	Gillig	G30D102N4	15GGD3011A1177870	MT43064	40 ft.	Y	HE	39	$ 539,236	**217,023**	12	183,008	34015
1098	2010	Gillig	G30D102N4	15GGD3013A1177871	MT43065	40 ft.	Y	HE	39	$ 539,236	**234,074**	12	201,769	32305
1099	2010	Gillig	G30D102N4	15GGD3015A1177872	MT43066	40 ft.	Y	HE	39	$ 539,236	**232,807**	12	198,968	33839
1542	2015	Gillig	G30D102N4	15GGD3013F1186237		40 ft.	Y	HY	39	$ 648,395	**52,633**	12	18,215	34418
1543	2015	Gillig	G30D102N4	15GGD3013F1186238		40 ft.	Y	HY	39	$ 648,395	**51,310**	12	14,289	37021
1544	2015	Gillig	G30D102N4	15GGD3013F1186239		40 ft.	Y	HY	39	$ 648,395	**51,275**	12	19,695	31580
1605	2016	Gillig	G30D102N4	15GGD3019G1187037		40 ft.	Y	HY	39	$ 662,299	**16,665**	12	0	16665
1606	2016	Gillig	G30D102N4	15GGD3019G1187038		40 ft.	Y	HY	39	$ 662,299	**18,601**	12	0	18601
1607	2016	Gillig	G30D102N4	15GGD3019G1187039		40 ft.	Y	HY	39	$ 662,299	**20,054**	12	0	20054
1608	2016	Gillig	G30D102N4	15GGD3019G1187040		40 ft.	Y	HY	39	$ 662,299	**13,650**	12	0	13650
TOTALS	50									$17,486,660	14,909,351		13,450,958	1,458,393

***Number of vehicles required to provide peak hour service--41

BARTA OWNED PARATRANSIT VEHICLES

VEH #	YEAR	MAKE	MODEL	VIN #	LICENSE #	LGTH	LIFT	FUEL	PSGRS	COST-NEW	COST-REPL	7/1/2017 ODOMETER	YEARS USEFUL-LIFE
1104	2011	Ford	E450CEQPhoenix	1FDFE4FS1ADB00237	MT43661	23.5 ft.	Y	UNL	12	$ 74,913	$ 83,888	129590	5
1110	2011	Ford	E450CEQPhoenix	1FDFE4FS0ADB00245	MT43671	23.5 ft.	Y	UNL	12	$ 74,913	$ 83,888	123771	5
1114	2011	Ford	E450CEQPhoenix	1FDFE4FS8ADB00249	MT43647	23.5 ft.	Y	UNL	12	$ 74,913	$ 83,888	120531	5
1115	2011	Ford	E450CEQPhoenix	1FDFE4FS4ADB00250	MT43646	23.5 ft.	Y	UNL	12	$ 74,913	$ 83,888	133003	5
1117	2011	Ford	E450CEQPhoenix	1FDFE4FS8ADB00252	MT43670	23.5 ft.	Y	UNL	12	$ 74,913	$ 83,888	121221	5
1134	2011	Ford	E450CEQPhoenix	1FDFE4FS9BDA16863	MT43666	25.5 ft.	Y	UNL	13	$ 80,353	$ 88,388	134401	5
1237	2012	Ford	E450CEQPhoenix	1FDFE4FS5CDA67407	MT44239	23.5 ft.	Y	HE	12	$ 111,554	$ 115,511	111034	5
1238	2012	Ford	E450CEQPhoenix	1FDFE4FS1CDB24458	MT44311	23.5 ft.	Y	HE	12	$ 113,737	$ 115,511	106010	5
1239	2012	Ford	E450CEQPhoenix	1FDFE4FSXCDB24457	MT44312	23.5 ft.	Y	HE	12	$ 113,737	$ 115,511	82113	5
1240	2012	Ford	E450CEQPhoenix	1FDFE4FS3CDB24459	MT44313	23.5 ft.	Y	HE	12	$ 113,737	$ 115,511	99039	5
1241	2012	Ford	E450CEQPhoenix	1FDFE4FS8CDB24456	MT44310	23.5 ft.	Y	HE	12	$ 113,737	$ 115,511	90882	5
1301	2013	Ford	E450CEQPhoenix	1FDFE4FS4DDA39938	MT44854	23.5 ft.	Y	ELEC	12	$ 257,147	$ 264,861	0	5
1302	2013	Ford	E450CEQPhoenix	1FDFE4FS2DDA39937	MT44397	23.5 ft.	Y	ELEC	12	$ 257,147	$ 264,861	0	5
1410	2014	Ford	E450CEQPhoenix	1FDFE4FS0DDB27255	MT45036	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	70431	5
1411	2014	Ford	E450CEQPhoenix	1FDFE4FS2DDB27256	MT45037	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	98594	5
1412	2014	Ford	E450CEQPhoenix	1FDFE4FS4DDB27257	MT45035	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	84890	5
1413	2014	Ford	E450CEQPhoenix	1FDFE4FS6DDB27258	MT45156	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	89677	5
1414	2014	Ford	E450CEQPhoenix	1FDFE4FS8DDB27259	MT45019	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	71824	5
1415	2014	Ford	E450CEQPhoenix	1FDFE4FS2DDB28858	MT45033	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	67723	5
1416	2014	Ford	E450CEQPhoenix	1FDFE4FS4DDB28859	MT45034	23.5 ft.	Y	HE	13	$ 113,714	$ 115,988	74832	5
1546	2015	Ford	E450CEQPhoenix	1FDFE4FS7GDC18852	MT46276	23.5 ft.	Y	UNL	13	$ 67,473	$ 67,473	30788	5
1547	2015	Ford	E450CEQPhoenix	1FDFE4FS7GDC18853	MT46277	23.5 ft.	Y	UNL	13	$ 67,473	$ 67,473	39771	5
1548	2015	Ford	E450CEQPhoenix	1FDFE4FS7GDC18854	MT46278	23.5 ft.	Y	UNL	13	$ 66,898	$ 67,473	48039	5
1649	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56600	MT46780	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	30141	5
1650	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56601	MT46846	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	25111	5
1651	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56602	MT46845	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	21839	5
1652	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56603	MT46844	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	20840	5
1653	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56604	MT46843	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	23581	5
1654	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56605	MT46842	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	21527	5
1655	2016	Ford	E450CEQPhoenix	1FDFE4FS5GDC56606	MT46837	23.5 ft.	Y	UNL	13	$ 67,407	$ 67,407	33852	5
1756	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19001	MT47057	23.5 ft.	Y	UNL	13	$ 67,158	$ 67,158	13818	5
1757	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19002	MT47048	23.5 ft.	Y	UNL	13	$ 67,158	$ 67,158	21369	5
1758	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19003	MT47047	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	16788	5
1759	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19004	MT47037	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	13704	5
1760	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19005	MT47035	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	19812	5
1761	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19006	MT47056	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	14617	5
1762	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19007	MT47036	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	17438	5
1763	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19008	MT47046	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	14411	5
1764	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19009	MT47045	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	11964	5
1765	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19010	MT47106	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	10756	5
1766	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19011	MT47044	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	2564	5
1767	2017	Ford	E450CEQPhoenix	1FGFE4FS5HDC19012	MT47055	23.5 ft.	Y	UNL	13	$ 66,583	$ 66,583	10527	5
TOTALS	42						42			$ 3,805,551	$ 3,901,435	2,272,823	

***Number of vehicles required to provide peak hour service--34
***Number of vehicles not in use during peak hour service--6

BARTA OWNED PARATRANSIT VEHICLES PROVIDED TO THIRD PARTY CONTRACTOR**

VEH #	YEAR	MAKE	MODEL	VIN #	LICENSE #	LGTH	LIFT	FUEL	PSGRS	COST-NEW	COST-REPL	7/1/2017 ODOMETER	YEARS USEFUL LIFE
A-15	2009	Dodge	Minivan	2D8HN44E29R560270	MT42049	17 ft.	Y	UNL	5	$ 42,295	$ 42,295	211,544	5
A-18	2009	Dodge	Minivan	2D8HN44E29R560279	MT42048	17 ft.	Y	UNL	5	$ 42,295	$ 42,295	191,366	5
A-20	2009	Dodge	Minivan	2D8HN44E29R560262	MT42374	17 ft.	Y	UNL	5	$ 42,295	$ 42,295	152,599	5
A-21	2009	Dodge	Minivan	2D8HN44E29R560274	MT42050	17 ft.	Y	UNL	5	$ 42,295	$ 42,295	156,103	5
1404	2014	Ford	Challenger	1FDFE4FS8EDA29074	MT45071	23.5 ft.	Y	UNL	13	$ 63,133	$ 65,390	126,121	5
1405	2014	Ford	Challenger	1FDFE4FSXEDA29075	MT45072	23.5 ft.	Y	UNL	13	$ 63,133	$ 65,390	128,493	5
1406	2014	Ford	Challenger	1FDFE4FS1EDA29076	MT45073	23.5 ft.	Y	UNL	13	$ 63,133	$ 65,390	116,284	5
1407	2014	Ford	Challenger	1FDFE4FS0EDA41056	MT45074	23.5 ft.	Y	UNL	13	$ 63,133	$ 65,390	103,883	5
1408	2014	Ford	Challenger	1FDFE4FS2EDA41057	MT45075	23.5 ft.	Y	UNL	13	$ 63,483	$ 65,390	102,327	5
1409	2014	Ford	Challenger	1FDFE4FS4EDA41058	MT45076	23.5 ft.	Y	UNL	13	$ 63,483	$ 65,390	116,205	5
1401	2014	Ford	Challenger	1FTDS3EL3EDA44042	MG00218H	23 ft.	Y	UNL	9	$ 44,946	$ 46,650	79,932	3
1402	2014	Ford	Challenger	1FTDS3EL5EDA44043	MG0219H	23 ft.	Y	UNL	9	$ 45,296	$ 46,650	73,642	3
1403	2014	Ford	Challenger	1FTDS3EL1EDA44041	MG0220H	23 ft.	Y	UNL	9	$ 45,296	$ 46,650	73,342	3
1517	2015	Ford	Challenger	1FDFE4FS2GDC09167	MT46196	23 ft.	Y	UNL	9	$ 61,083	$ 61,083	71,942	5
1518	2015	Ford	Challenger	1FDFE4FS2GDC10710	MT45197	23 ft.	Y	UNL	9	$ 60,508	$ 60,508	70,767	5
1519	2015	Ford	Challenger	1FDFE4FS4GDC10711	MT46198	23 ft.	Y	UNL	9	$ 60,508	$ 60,508	67,415	5
TOTALS							9	0		$ 515,033	$ 532,290	1,841,965	

**Also Insured by Third Party Contractor

APPENDIX B

EQUIPMENT LISTING

EQUIPMENT LISTING

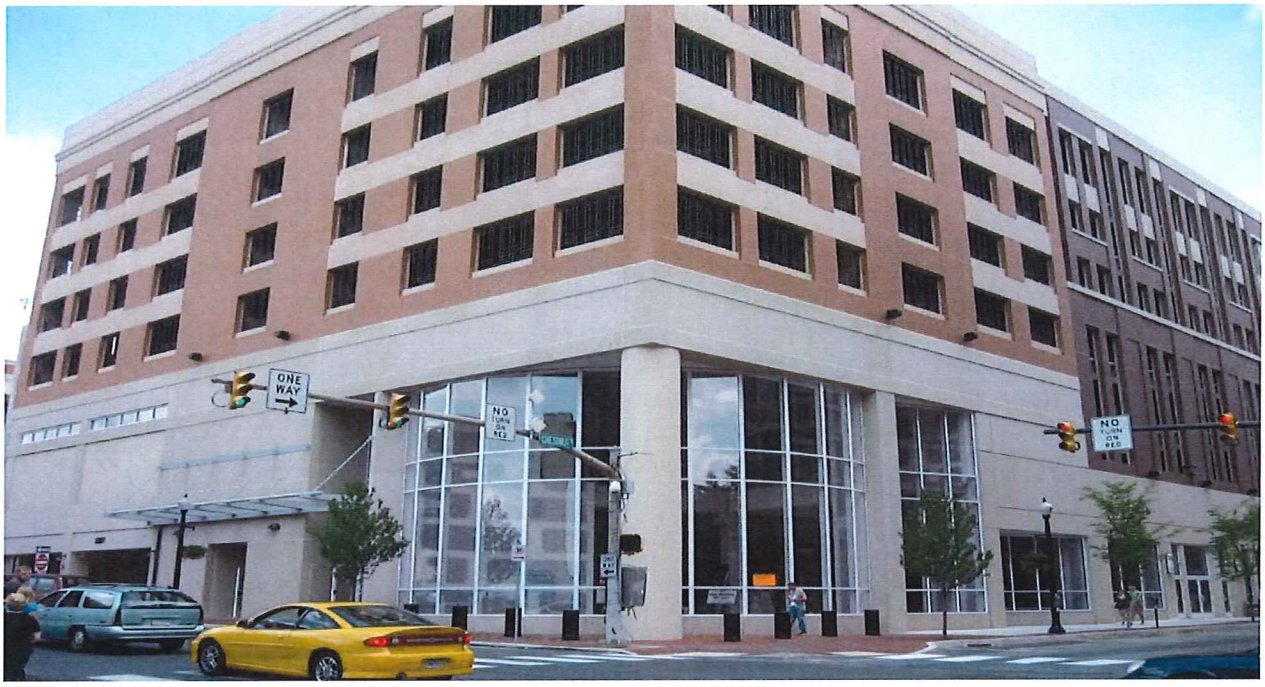
Lancaster	Value	Date of Purchase	Condition Rating	Useful Life
Radio Tower	$82,838	10/10/00	3	20 years
Bus Wash	$170,482	05/08/08	4	15 years
Bus Vacuum	$83,638	01/27/09	4	15 years
Bus Lift	$97,339	02/18/10	4	15 years
Snow Blower	$51,850	01/00/97	3	15 years
Reading				
3-Inground Bus lifts	$307,356	12/01/06	3	15 years
Fluid System	$73,494	08/01/09	4	15 years
Bus Wash	$113,869	07/11/05	3	15 years
Bus Vacuum	$91,140	07/11/05	3	15 years
Fuel Dispensing	$96,577	01/02/17	5	15 years

APPENDIX C

FACILITY LISTING

LANCASTER MAIN OPERATIONS CENTER

QUEEN STREET STATION PARKING GARAGE - LANCASTER



QUEEN STREET STATION - LANCASTER


RED ROSE TRANSIT AUTHORITY
QUEEN STREET STATION

BARTA Transportation Center

READING – FRANKLIN STREET STATION

READING OPERATIONS CENTER

APPENDIX D

SAMPLE INVENTORY FORMS

SCTA FIXED ASSET INVENTORY-VEHICLE

ASSET TAG NO:	1098	**LOCATION:**	11th Street
ASSET DESCRIPTION:	G30D102N4		
SERIAL NUMBER:	15GGD3013A1177871		
DATE IN SERVICE:	06/15/10		
EXPECTED LIFE:	12		
REPLACEMENT YEAR:	2022		

PURCHASE PRICE:	$539,236.00		
VENDOR NAME:	Gillig		
		TITLE:	BARTA - 100%

FUNDING:				**%**
FEDERAL:	$539,236	GRANT NO:	PA-96-X002	100%
STATE:		GRANT NO:		
LOCAL:				

CONDITION			
5-EXCELLENT		ACTIVE	✓
4-GOOD	Good	INACTIVE	
3-FAIR			
2-POOR		**MILEAGE** (if vehicle)	136,365
1-BEYOND USEFUL LIFE			

DATE OF INSPECTIONS:	03/26/15	**BY-INTIALS**	YZ
	6/30/17		KH
DATE SOLD/DISPOSED:		**AMOUNT:**	

BARTA FIXED ASSET INVENTORY-EQUIPMENT

ASSET TAG NO:	F-0596	**LOCATION:**	11TH STREET
ASSET DESCRIPTION:	EUROVAC-BUS VACUUM		
SERIAL NUMBER:			
DATE IN SERVICE:	07/11/05		
EXPECTED LIFE:	15		
REPLACEMENT YEAR:	2020		

PURCHASE PRICE:	$91,140.60		
VENDOR NAME:	EUROVAC		
		TITLE:	BARTA

FUNDING:				**%**
FEDERAL:		GRANT NO:		0.00%
STATE:	$88,105.62	GRANT NO:	PTAF	96.67%
LOCAL:	$3,034.98		LOCAL	3.33%

CONDITION		**USE**	
5-EXCELLENT		ACTIVE	✓
4-GOOD		INACTIVE	
3-FAIR	✓		
2-POOR			
1-BEYOND USEFUL LIFE			

DATE OF INSPECTIONS:	07/30/15	**BY-INTIALS**	YZ
	10/7/2016		KH

DATE SOLD/DISPOSED:		**AMOUNT:**		

SCTA FIXED ASSET INVENTORY-FACILITY

ASSET DESCRIPTION:	BARTA Transportation Center	**LOCATION:**	S 7th Street & Franklin Street
DATE IN SERVICE:	05/01/02		
EXPECTED LIFE:	30		
REPLACEMENT YEAR:	2032		
PURCHASE PRICE:	$13,299,682.95		Renovated in 2010
VENDOR NAME:		**TITLE:**	BARTA - 100%

FUNDING:				**%**
FEDERAL:	$10,639,746.36	GRANT NO:		80.00%
STATE:	$2,217,057.15	GRANT NO:		16.67%
LOCAL:	$442,879.44			3.33%

CONDITION		**USE**	
5-EXCELLENT		ACTIVE	✓
4-GOOD	☐	INACTIVE	
3-FAIR	✓		
2-POOR			
1-BEYOND USEFUL LIFE			

DATE OF INSPECTIONS:		**BY-INTIALS**	
	07/30/15		YZ
	06/30/17		KH

DATE SOLD/DISPOSED:		**AMOUNT:**	

RRTA FIXED ASSET INVENTORY-VEHICLE

ASSET TAG NO:	161	**LOCATION:**	45 Erick Road
ASSET DESCRIPTION:	2005 35' Gillig Bus		
SERIAL NUMBER:	15GCB291751112545		
DATE IN SERVICE:	08/08/05		
EXPECTED LIFE:	12		
REPLACEMENT YEAR:	2017		

PURCHASE PRICE:	$286,969.00		
VENDOR NAME:	Gillig		
		TITLE:	RRTA

FUNDING:				**%**
FEDERAL:	$229,575.00	GRANT NO:	PA-90-X552	80%
STATE:	$47,837.00	GRANT NO:	ACT 3 04-05	16.67%
LOCAL:	$9,557.00		Local	3.33%

CONDITION		**USE**	
5-EXCELLENT		ACTIVE	
4-GOOD		INACTIVE	✓
3-FAIR			
2-POOR	✓	**MILEAGE**	579,200
1-BEYOND USEFUL LIFE	☐	(if vehicle)	

DATE OF INSPECTIONS:	03/05/15	**BY-INTIALS**	YZ
	7/1/2016		KH
	9/1/2017		KH

DATE SOLD/DISPOSED:	10/29/2017	**AMOUNT:**	$2,420

APPENDIX E

PREVENTIVE MAINTENANCE CHECKLIST

AB INSPECTION (6,000 Miles)

Revised 08/14/2012

RED ROSE TRANSIT AUTHORITY
PREVENTIVE MAINTENANCE INSPECTION – 6,000 MILE

UNIT _____ MILEAGE _____ DATE _____ MECHANIC _____

Line No.

1	[ ]	Review History Card
2	[ ]	Walk Around Coach Damage Check – Record on Last Sheet
2A	[ ]	Paint Condition – Good/Fair/Poor
3	[ ]	Test Drive Unit – Noise – Smoke – Performance Check Heater and A/C Operation – (Run A/C in winter to lube seals)
4	[ ]	Engine Wash – Battery Wash – Rear Wheels Wash
5	[ ]	Bleed Down Brake – Buzzer on at _____PSI
6	[ ]	Dryer Blows off at _____PSI
7	[ ]	Steering Wheel Condition
8	[ ]	Steering Wheel Play
9	[ ]	Steering Wheel Column Mounting
9A	[ ]	Kneeler – Operation
10	[ ]	Horn
11	[ ]	Lights Dash and High Beam Indicators
12	[ ]	Wiper Washers – Operation
13	[ ]	Heater – Defroster – Operation (Driver Area)
13A	[ ]	Run Webasto Heater Check Operation
14	[ ]	Driver Seat Condition and Mounting – Check Seat Alarm
14A	[ ]	Roller on Brake Pedal Lubed and be sure it rolls free
15	[ ]	Wheelchair Lift or Ramp Operation – Steam Clean Platform – lube all hinge and pivots points. Check wires on sensors for frayed or torn wires – Check Hoses for Chafing. Check sensors for proper clearances.
15A	[ ]	Verify Voice Annunciator and Microphone Are Functioning Properly
16	[ ]	Walk Through Inspection
17	[ ]	Bell Strips and Buttons
18	[ ]	Seat Mounts – Side Wall Condition
18A	[ ]	Verify Wheelchair Seatbelts Are Clean and Function Properly
19	[ ]	Emergency Exits – Check Operation – Lube as necessary
20	[ ]	Grab Handles

21 [ ] Inside Lighting
22 [ ] Floor Condition – Bus Cleanliness
22A [ ] Replace HVAC Filters or Clean – Drain Tubes
23 [ ] Wiper Blade Condition – Replace as necessary
24 [ ] Front Grill Compartment – Fill Windshield Washer Solvent
25 [ ] Lights Exterior
25A [ ] Mirrors and Mounts Tighten
26 [ ] Exterior Glass Condition – Note: Breaks – Cracks. Record condition
27 [ ] Door Seal Condition – Lube Hinges if needed. DO NOT OVERGREASE WIPE OFF EXCESS GREASE
28 [ ] Battery Condition – Battery Connections Cleaned – Adjust voltage regulator if needed.
29 [ ] Motor Oil _____ qts. installed.
29A [ ] Clean Spinner Filter
30 [ ] Transmission Oil _____ qts. Installed
31 [ ] Front Brake Lining _____% left
31A [ ] Check Slack Adjusters for Proper Operation – Adjust Brakes
32 [ ] Front Suspension Condition – King Pins – EQ Links
33 [ ] Front Steering Linkage
33A [ ] Lube Chassis
34 [ ] Front Bellows
35 [ ] Air Tanks Drained – Excessive oil or water indicates repairs are necessary
36 [ ] Fuel Tank Straps and Bolts Tight
36A [ ] Change Oil - Fuel – Water - Transmission Filters **COLLECT OIL SAMPLE**
37 [ ] Rear Suspension – Radius Rods And Bushings – Check Rear End Lube
38 [ ] Rear Bellows
39 [ ] Rear Brake Shoes _____% left
40 [ ] Engine Mounts
40A [ ] Check Fan Belt Idler Pulley's
41 [ ] Drive Shaft – U-Joints – Bolts
42 [ ] Chafing Hoses – Chafing Wires at wire loops
42A [ ] Check Fuel Switch for Leaks and Wire Connections
43 [ ] Tire Pressure Adjusted to Proper Pressure Per MFG Recomendtions.
44 [ ] Tread Depts/32" LF ___ RF ___ RRI____ RRO___ LRI ____ LRO ____
45 [ ] Water Hoses Checked and Replaced as Necessary
46 [ ] Air Cleaner Checked – Replace as Necessary
47 [ ] Exhaust and Turbo Checked
48 [ ] Air Compressor – Hoses and Lines
49 [ ] Fuel Lines – Chafing and Leaking

50	[ ]	Power Steering – Fluid Condition – Level
51	[ ]	Anti-Freeze – Coolant Protection - _____F, SCA level_____
51A	[ ]	HYBRID BUSES – Check Anti-Freeze Level in Roof Coolant Tank.
52	[ ]	Compartment Doors and Latches
53	[ ]	Test Emergency Call Police Alarm. Verify Destination Sign and AVL in Dispatch Show Emergency.
54	[ ]	Verify That AVL is Registering in Dispatch
55	[ ]	Verify DVR power is on and REC light is on. EXCHANGE HARDRIVE

3 = OK X = Repair Needed □ = Repair Completed

REPAIRS MADE

SCTA PREVENTIVE MAINTENANCE CHECKLIST

Task	6k or 90 days	12k	24k or 6 Mos.	48k or 12 Mos.	75k	96k or 2 Yrs	150k	250k or 7 Yrs.
Is bus sitting level when parked?	x							
Take warm oil sample	x							
Change oil and filter	x							
Clean Spinner II	x							
Inspect radiator for leaks, dirt, debris	x							
Check coolant hoses and clamps	x							
Check surge tank & pressure release cap	x							
Steam clean engine compartment	x							
Lubricate drive line	x							
Replace hydraulic fluid filter	x							
Check air compressor mounting	x							
Check air tank mounting	x							
Check brake system for air leaks	x							
Inspect brake adjustment and slack adjuster operation	x							
Lubricate slack adjusters	x							
Inspect air bags, shocks and bushings for damage, wear, leaks	x							
Check ride height, test height control valve	x							
Test kneel	x							
Inspect front radius rod play	x							
Inspect rear radius rod play	x							
Inspect and lubricate steering linkage.	x							
Inspect king pin play	x							
Check differential oil level	x							
Inspect engine, transmission for oil leaks	x							
Check front door adjustment, sensitive edges, seals and interlocks. Lubricate linkage	x							
Check rear door adjustment, sensitive edges, seals and interlocks	x							
Check exterior lighting	x							
Check indicator lights and insturments	x							
Test Stop Request	x							
Test PA system, including external speakers	x							

Check for engine, transmission, ABS fault codes. Print Trip Report	x							
Check interior lights	x							
Check presence of vehicle registration, insurance card and accident packet	x							
Detail interior, including overhead box.	x							
Check engine compartment lights	x							
Check all emergency exits and hatches, presence of emergency handle	x							
Test the linear heat detector wires in engine compartment	x							
Check battery hold downs and cables	x							
Clean and loadtest batteries	x							
Inspect starter cables, mounting bolts	x							
Inspect AMEREX bottle pressure and system OK	x							
Inspect alternator (if equipped) cables and mounting	x							
Inspect all HVAC cables and components	x							
Inspect wiper blades and linkage. Lubricate pivot points. Check torque & adjustment	x							
Inspect body interior, seats and floors for damage	x							
Inventory and inspect all wheel chair tie down components	x							
Inspect and record all body damage	x							
Inspect all staunchions and grab rails for security	x							
Test wheelchair ramp operation. Check presense of emergency release handle	x							
Check for engine, transmission, ABS fault codes. Print Trip Report	x							
Clean, inspect and lubricate all chains and moving parts of w/c ramp	x							
Check refrigerant charge, compressor oil level and color	x							
Visually inspect all HVAC lines, hoses and fittings	x							
Check dry eyes and/or liquid line sight glass for moisture	x							
Inspect compressor drive belt, belt tension, tensioner and pulleys	x							
Replace HVAC return air filter	x							
Inspect condensor and coils	x							
Clean Defroster heater filter	x							
Clean A/C filter	x							
Perform stationary DPF regen	x							
Test both horn buttons	x							

Test driver seat controls	x							
Test all mirror controls. Insspect for damage	x							
Test sun shade operation	x							
Inspect brakes, record lining thickness	x							
Check engine mounts	x							
Inspect fire extinguisher charge, mounting	x							
Inspect emergency triangles and mounting	x							
Drain air tanks. Inspect for water/oil. Check Low Air light & Alarm, Park Brake activation	x							
Record air pressure recovery time, governmor set to 120 psi	x							
Update engine calibration		x						
Inspect mounting hardware in engine compartment		x						
Inspect air intake piping and clamps		x						
Clean charge air cooler		x						
Check exhaust for restrictions, leaks or loose mounting		x						
Check wheel stud torque		x						
Lubricate battery tray slides		x						
Replace fuel/water seperator		x						
Check coolant SCA concentration level		x						
Replace coolant filter		x						
Perform 4 wheel alignment		x						
Replace wiper blades			x					
Check belt/pulley alignment			x					
Inspect fuel tank mounts and straps			x					
Clean and lubricate wheel chair ramp			x					
Replace hydraulic fluid			x					
Check charge air cooler for leaks			x					
Check drive line fastener torque			x					
Check hydraulic pump mounting			x					
Test air dryer, check mounting, check for leaks			x					
Clean & inspect brake valve treadle, oil peddle assy			x					
Grease tie rod ends and king pins			x					
Check axle mounting and flange nut torque			x					
Check headlight aim			x					
Load test battery			x					
Check voltage regulator settings			x					
Inspect evap/heater blower & condensor fan motors			x					
AMEREX semi-annual service			x					
Replace secondary fuel filter			x					

Check fan hub			x					
Check automatic belt tensioner			x					
Steam clean all upholstery			x					
Semi-annual fare box service			x					
Check starter engagement protection circuit				x				
Check battery switch for function and continuity				x				
Inspect air compressor mounts, air lines and fittings				x				
Check compressor discharge and inlet for carbon				x				
Clean differential breather				x				
Check cooling fan motor and blades				x				
Test air governor operation				x				
Disassemble and clean PPV and single check valves				x				
Rebuild PP-1 park brake valve				x				
Re-torque front & rear suspension fasteners				x				
Replace shocks				x				
Replace compressor drive belt (if equipped)				x				
Replace defroster heater				x				
Replace floor heater filter				x				
Inspect vibration dampener				x				
Clean DPF filter				X				
Change transmission filters					x			
Adjust overhead					x			
Rebuild QR-1, SR-1, R-12DC, R-14, double check valves						x		
Rebuild air drier and replace desiccant				x				
Change coolant and flush system							x	
Replace differential fluid							x	
Change transmissison fluid							x	
Replace radiator, CAC, coolant hoses and clamps								x
Rebuild air compressor								x
Replace air bags and leveling valves								x
Replace differential breather								x
Replace driver seat								x
Replace automatic belt tensioners and pulleys								x
Replace starter								x
Replace injectors								x
Replace engine wiring harness								x
Replace all radius rods								x
Replace all passenger seat inserts								

APPENDIX F

MONTHLY MAINTENANCE PERFORMANCE REPORT

PERFORMANCE ANALYSIS - LANCASTER

MONTH: **MAY**

	CURRENT FY 2018		PRIOR FY 2017	
	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL MILES	150,730	1,581,131	143,113	1,530,372
TOTAL FUEL	28,287	293,192	27,973	267,221
TOTAL OIL	55	567	14	400
M. P. G.	5.33	5.39	5.12	5.73
M. P. / QT.	2,741	2,789	10,015	3,823
MAJOR SYSTEM FAILURES	24	242	9	134
MINOR SYSTEM FAILURES	12	86	15	94
TOTAL SYSTEM FAILURES	36	328	24	228
MILES BETWEEN MAJOR SYSTEMS	6,280	6,534	15,901	11,421
MILES BETWEEN MINOR SYSTEM	12,561	18,385	9,541	19,281
MILES BETWEEN TOTAL FAILURES	4,187	4,821	5,963	6,712
FIXED ROUTE MILES	139,829	1,510,509	138,008	1,458,165
CHARTER MILES	0	0	0	0
GARAGE/MAINTENANCE MILES	10,901	70,622	5,105	72,207
SERVICE TRUCK MILES	411	3,219	451	6,395
SERVICE TRUCK FUEL	32	310	61	1,707
WRECKER MILES	0	224	0	252

PERFORMANCE ANALYSIS -READING

MONTH: **May**

	CURRENT FY 2018		PRIOR FY 2017	
	MONTH	**YEAR TO DATE**	**MONTH**	**YEAR TO DATE**
TOTAL MILES	134,622	1,307,173	143,113	1,388,731
TOTAL FUEL	34,259	346,331	32,153	351,249
TOTAL OIL (Qt)	238	2,514	14	2,977
M. P. G.	3.93	3.77	5.12	5.73
M. P. / QT.	565	520	10,015	3,823
MAJOR SYSTEM FAILURES	24	204	9	134
MINOR SYSTEM FAILURES	24	217	15	94
TOTAL SYSTEM FAILURES	48	421	24	228
MILES MAJOR SYSTEMS	5,609	6,408	15,901	11,421
MILES MINOR SYSTEM	5,609	6,024	9,541	16,281
MILES TOTAL FAILURES	2,805	3,105	5,963	6,712
FIXED ROUTE MILES	131,859	1,110,164	138,008	1,458,165
GARAGE/MAINTENANCE MILES	2,763	197,009	5,105	(69,434)
SERVICE TRUCK MILES	1,691	12,557	5,105	72,207
SERVICE TRUCK FUEL	85	1,270	451	6,395
WRECKER MILES	0	0	61	1,707

APPENDIX G

HISTORIC ROADCALL RATES FY 2003-2016

SOUTH CENTRAL TRANSIT AUTHORITY
Fixed Route Rolling Stock Performance
FY 2003 - FY 2015

Item	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Odometer Mileage	2,973,641	3,189,161	3,247,544	3,141,303	3,136,435	3,175,080	3,146,437	3,141,216	3,103,568	3,360,217	3,135,069	3,182,143	3,157,409	2,993,416
Total Fuel Use (gal)	773,692	782,956	806,547	804,580	803,702	821,337	819,262	771,477	770,519	823,407	763,158	762,384	764,219	633,824
Total Oil Use (qts)														
Miles per Gallon of Fuel	3.84	4.07	4.03	3.90	3.90	3.87	3.84	4.07	4.03	4.08	4.11	4.17	4.13	4.72
Miles Per Quart of Oil														
Major Systems Breakdowns	572	446	558	522	422	359	348	301	331	354	371	483	507	452
Non-Major Systems Breakdowns	823	1,000	798	892	544	496	584	515	281	642	654	649	678	623
Total Breakdowns	1,395	1,446	1,356	1,414	966	855	932	816	612	996	1,025	1,132	1,185	1,075
Miles Per Major Breakdown	5,199	7,151	5,820	6,018	7,432	8,844	9,041	10,436	9,376	9,492	8,450	6,588	6,228	6,623
National Average - NTD	**7,450**	**7,417**	**6,979**	**6,846**	**7,687**	**7,602**	**7,993**	**8,214**	**8,654**	**9,608**	**9,823**	**7,943**	**10,357**	**10,357**
Variance	**-43.3%**	**-3.7%**	**-19.9%**	**-13.8%**	**-3.4%**	**14.0%**	**11.6%**	**21.3%**	**7.7%**	**-1.2%**	**-16.2%**	**-20.6%**	**-66.3%**	**-56.4%**
Miles Per Non-Major Breakdown	3,613	3,189	4,070	3,522	5,766	6,401	5,388	6,099	11,045	5,234	4,794	4,903	4,657	4,805
Miles Per Total Breakdown*	2,132	2,206	2,395	2,222	3,247	3,714	3,376	3,850	5,071	3,374	3,059	2,811	2,664	2,785
Average Fleet Age**	9.3	8.4	8.2	6.1	6.5	5.9	5.1	4.7	5.6	6.4	7.0	7.8 7.2	9.0 6.7	8.0

RED ROSE TRANSIT AUTHORITY
Fixed Route Rolling Stock Performance
FY 2003 - FY 2015

Item	Fiscal Year: 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Odometer Mileage	1,636,096	1,595,197	1,637,139	1,631,237	1,616,360	1,618,129	1,639,885	1,626,480	1,555,096	1,756,493	1,536,136	1,533,223	1,558,626	1,655,602
Total Fuel Use (gal)	381,866	340,717	365,566	371,755	378,586	381,308	386,708	371,514	368,929	411,922	349,060	343,680	343,735	316,128
Miles per Gallon of Fuel	4.28	4.68	4.48	4.39	4.27	4.24	4.24	4.38	4.22	4.26	4.40	4.46	4.53	5.24
Major Systems Breakdowns	341	222	230	255	206	123	135	152	136	182	154	203	260	266
Non-Major Systems Breakdowns	199	185	285	274	193	105	190	148	126	172	123	176	226	158
Total Breakdowns	540	407	515	529	399	228	325	300	262	354	277	379	486	424
Miles Per Major Breakdown	4,798	7,186	7,118	6,397	7,846	13,156	12,147	10,701	11,435	9,651	9,975	7,553	5,995	6,224
National Average - NTD	**7,450**	**7,417**	**6,979**	**6,846**	**7,687**	**7,602**	**7,993**	**8,214**	**8,654**	**9,608**	**9,823**	**7,943**	**10,357**	
Variance	**-55.3%**	**-3.2%**	**2.0%**	**-7.0%**	**2.0%**	**42.2%**	**34.2%**	**23.2%**	**24.3%**	**0.4%**	**1.5%**	**-5.2%**	**-72.8%**	**100.0%**
Miles Per Non-Major Breakdown	8,222	8,623	5,744	5,953	8,375	15,411	8,631	10,990	12,342	10,212	12,489	8,711	6,897	10,478
Miles Per Total Breakdown*	3,030	3,919	3,179	3,084	4,051	7,097	5,046	5,422	5,935	4,962	5,546	4,045	3,207	3,905
Average Fleet Age**	8.6	5.7	6.2	5.2	4.9	4.8	5.0	5.7	6.7	7.4	7.5	8.1	9.1	7.0

BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
Fixed Route Rolling Stock Performance
FY 2003 - FY 2013

Item	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Odometer Mileage	1,337,545	1,593,964	1,610,405	1,510,066	1,520,075	1,556,951	1,506,552	1,514,736	1,548,472	1,603,724	1,598,933	1,648,920	1,598,783	1,337,814
Total Fuel Use (gal)	391,826	442,239	440,981	432,825	425,116	440,029	432,554	399,963	401,590	411,485	414,098	418,704	420,484	317,696
Miles per Gallon of Fuel	3.41	3.60	3.65	3.49	3.58	3.54	3.48	3.79	3.86	3.90	3.86	3.94	3.80	4.21
Major Systems Breakdowns	231	224	328	267	216	236	213	149	195	172	217	280	247	186
Non-Major Systems Breakdowns	624	815	513	618	351	391	394	367	155	470	531	473	452	465
Total Breakdowns	855	1,039	841	885	567	627	607	516	350	642	748	753	699	651
Miles Per Major Breakdown	5,790	7,116	4,910	5,656	7,037	6,597	7,073	10,166	7,941	9,324	7,368	5,889	6,473	7,193
National Average - NTD	**7,450**	**7,417**	**6,979**	**6,846**	**7,687**	**7,602**	**7,993**	**8,214**	**8,654**	**9,608**	**9,823**	**7,943**	**10,357**	
Variance	**-28.7%**	**-4.2%**	**-42.1%**	**-21.0%**	**-9.2%**	**-15.2%**	**-13.0%**	**19.2%**	**-9.0%**	**-3.0%**	**-33.3%**	**-34.9%**	**-60.0%**	**100.0%**
Miles Per Non-Major Breakdown	2,144	1,956	3,139	2,443	4,331	3,982	3,824	4,127	9,990	3,412	3,011	3,486	3,537	2,877
Miles Per Total Breakdown*	1,564	1,534	1,915	1,706	2,681	2,483	2,482	2,936	4,424	2,498	2,138	2,190	2,287	2,055
Average Fleet Age**	10.0	11.0	10.2	7.0	8.0	6.9	5.1	3.7	4.4	5.4	6.4	7.4	8.9	8.8

* A breakdown is defined as a major system (previously mechanical) breakdown and non-major systems (previously non-mechanical) breakdowns as defined under the National Transit Database reporting system.

APPENDIX H

FACILITY INSPECTION FORMS

OPERATIONS FACILITIES

Facility & Equipment Condition Assessment Inspection Form

Inspection Date:
Inspector(s) Name:
Facility Type:
Facility Name:
Facility Address:

HQ Facility Inspection Procedures			
Task Item	**Inspection Item**	**Task**	**Notes**
A.	Major Component: Substructure Score	Inspect the following items.	
A.1.	Sub-Component: Support Walls	Inspect for crumbling or severe cracking. Paint Condition.	
A.2.	Sub-Component: Exterior Foundation	Look at foundations, columns, and pillars for deterioration and indicators of shifting or settling.	
A.3.	Sub-Component: Concrete Slab	Inspect for crumbling or severe cracking/lifting or settling.	
A.4.	Sub-Component: Beams & Trusses	Inspect for corrosion, cracking, bending, hardware condition, and paint coverage.	
B.	Major Component: Roof	Inspect the following items.	
B.1.	Sub-Component: Gutters, Downspouts & Drains	Inspect for drainage, clogs, leaks, loose connections, damage or missing components.	
B.2.	Sub-Component: Structural	Inspect for loose mounting connections, missing components, or corrosion.	
B.3.	Sub-Component: Surfaces (Shingles/Membrane)	Check flashing, tiles and rubber for cracking, intrusion, barrier breach, or missing items. Inspect painted & coated surfaces for deterioration, and hardware condition.	
B.4.	Sub-Component: Mechanical	Inspect any roof mounted structures (HVAC) for proper anchoring. Inspect for leaks, damage, weather-related deterioration, or missing components. Inspect boiler flues and venting for blockage/damage. Inspect electrical components for damage or corrosion.	
C.	Major Component: Exterior Shell	Inspect the following items.	
C.1.	Sub-Component: Exterior Windows	Inspect for broken glass, locking mechanism, damaged or corroded frames.	
C.2.	Sub-Component: Exterior Doors	Inspect for broken glass, locking mechanism, damaged or corroded frames.	
C.3.	Sub-Component: Siding Material	Inspect for impact damage, corrosion, missing panels, and paint condition.	
C.4.	Sub-Component: Garage Door(s)	Inspect for function, tracking, electrical components, damage and corrosion.	
C.5.	Sub-Component: Mechanical	Inspect electrical conduit and utility hookups for damage, corrosion or missing parts.	
C.6.	Sub-Component: Surface	Inspect for missing or fading paint, coatings, siding, concrete, and gaskets for deterioration corrosion or impact damage.	

Task Item	Inspection Item	Task	Notes
D.	Major Component: Interior (Office)	Inspect the following items.	
D.1.	Sub-Component: Floor Tile	Inspect for missing items and severe wear and tear. Uneven or unlevel floors.	
D.2.	Sub-Component: Carpet	Inspect for severe wear and tear, rips and stains.	
D.3.	Sub-Component: Doors	Inspect for broken glass, lock function, noises. Doors should be square within frame. Inspect ADA door for function.	
D.4.	Sub-Component: Structure (Walls, foundation, Trusses	Inspect drywall for crumbling or signs of water damage, bowed walls, and even molding.	
D.5.	Sub-Component: Surface (Paint)	Inspect for faded paint and coatings, stains and marks.	
D.6.	Sub-Component: Insulation	Inspect for drafts, missing items, and proper sealing.	
D.7.	Sub-Component: Mechanical (Utility)	Inspect lighting fixtures, leaky plumbing, exposed wiring, noises or smells. Inspect air ducts and venting.	
D.8.	Sub-Component: Stairs (surface & Structure)	Inspect for decay and corrosion, trip hazards, paint/coating condition, cracked welds, and loose surfaces, and mounting locations foundation/walls/rails.	
D.9.	Sub-Component: Ceiling (Tiles/surface)	Inspect for missing items, decay, staining and signs of water damage.	
E.	Major Component: Interior (Maintenance Shop & Parts Storeroom)	Inspect the following items.	
E.1.	Sub-Component: Mechanical (utility, pumps, lighting, electrical)	Inspect electrical conduit and utility hookups for damage, corrosion or missing parts.	
E.2.	Sub-Component: Structural (walls, frame, trusses)	Inspect foundation, walls, and support trusses for corrosion, decay, and cracks. Doors are square in frame.	
E.3.	Sub-Component: Surface (Paint/Walls))	Inspect for faded or peeling paint and coatings on wall surfaces.	
E.4.	Sub-Component: Stairs (surface & Structure)	Inspect for decay and corrosion, trip hazards, paint/coating condition, cracked welds, and loose surfaces, and mounting locations foundation/walls/rails.	
E.5.	Sub-Component: Flooring (Epoxy coating, level, condition)	Inspect floor for peeling paint and coatings. Is floor level without cracks?	
E.6.	Sub-Component: Ventilation System	Inspect filters, airflow function, and dust buildup. Inspect air ducts for separations and blockages.	
E.7.	Sub-Component: Plumbing	Inspect for leaks or corrosion, blocked drains.	
E.8.	Sub-Component: Ceiling(Leaks/Cracks)	Inspect for water leaks/damage, and decay.	

F.	Major Component: Plumbing System	Inspect the following items.	
F.1.	Sub-Component: Boiler/Furnace	Inspect for function, service records.	
F.2.	Sub-Component: Backflow Prevention Device	Inspect for function, service records.	
F.3.	Sub-Component: Water Heater	Inspect for function, corrosion, and service records.	
F.4.	Sub-Component: Exposed Pipes and Valves	Inspect for leaks and corrosion.	
F.5.	Sub-Component: Fixtures-Water Closets	Inspect for function, leaks, and corrosion	
F.6.	Sub-Component: Fixtures-Sink/Faucet	Inspect for function, leaks, and corrosion	
F.7.	Sub-Component: Fixtures-Urinal	Inspect for function, leaks, and corrosion	
G.	Major Component: HVAC System	Inspect the following items.	
G.1.	Sub-Component: Chiller(s)	Inspect for function, decay, leaks, and corrosion.	
G.2.	Sub-Component: Garage Ventilation Fans	Inspect for function, decay, leaks, and corrosion.	
G.3.	Sub-Component: Filters	Inspect for function, decay, leaks, and corrosion.	
G.4.	Sub-Component: Individual AC Units	Inspect for function, decay, leaks, and corrosion.	
G.5.	Sub-Component: Interior/Exterior Diffuser and flu venting.	Inspect for function, decay, leaks, blockage, and corrosion.	
G.6.	Sub-Component: Disconnects	Inspect for function, decay, leaks, and corrosion.	

Task Item	Inspection Item	Task	Notes
H.	Major Component: Fire Protection System/Security Alarm System	Inspect the following items.	
H.1.	Sub-Component: Control Panel	Inspect for function and loose wires.	
H.2.	Sub-Component: Smoke Detection Devices	Inspect for function and loose wires.	
H.3.	Sub-Component: Heat Sensing Detectors	Inspect for function and loose wires.	
H.4.	Sub-Component: Strobe Alarm Lights	Inspect for function and loose wires.	
H.5.	Sub-Component: Audible Alarm	Inspect for function and loose wires.	
H.6.	Sub-Component: Phone Communication Module	Inspect for function and loose wires.	
H.7.	Sub-Component: Sprinkler System	Inspect for function, proper pressures, and service records	
H.8.	Sub-Component: Fire Alarm Pull Stations	Inspect for function and loose wires.	
H.9.	Sub-Component: Extinguisher(S)	Inspect for function, charging system, expiration dates, and mounting hardware.	
H.10.	Sub-Component: Power Supply Systems	Inspect for function and loose wires.	
H.11.	Sub-Component: Emergency Exit Signs	Inspect for function, low power backup feature, and burned bulbs.	
H.12.	Sub-Component: Stand Pipes & Plumbing	Inspect for condition & Function	
H.13.	Sub-Component: Emergency Interior Lights	Inspect for function, low power backup feature, and burned bulbs.	
I.	Major Component: Electrical	Inspect the following items.	
I.1.	Sub-Component: Breaker Panel Box	Inspect for loose wires, corrosion, decay, and damage.	
I.2.	Sub-Component: Emergency Pull Box	Inspect shut off for function. Inspect for loose wires, corrosion, decay, and damage.	
I.3.	Sub-Component: Junction Box	Inspect for loose wires, corrosion, decay, and damage.	
I.4.	Sub-Component: Light Switches	Inspect for function, loose wires or switches, corrosion, and damage.	
I.5.	Sub-Component: Electrical Outlets	Inspect for function, loose wires and mounting, corrosion, and damage.	
I.6.	Sub-Component: Garage Door Controls	Inspect for function, loose wires and mounting, corrosion, and damage.	
I.7.	Sub-Component: Connections	Inspect for function, loose wires and mounting, corrosion, and damage.	
I.8.	Sub-Component: Interior Light Fixtures	Inspect for function, burned out bulbs, loose wires and mounting, corrosion, and damage.	
I.9.	Sub-Component: Exterior Light Fixtures	Inspect for function, burned out bulbs, loose wires and mounting, corrosion, and damage.	
I.10.	Sub-Component: Transformer	Inspect for function, corrosion, loose wires, and damage.	

Task Item	Inspection Item	Task	Notes
J.	Major Component: Equipment	Inspect the following items.	
J.1.	Equipment: Paint Booth*	Inspect lighting, electrical, heat, and ventilation systems.	
J.2.	Equipment: Bus Wash Rack System*	Inspect electrical, lighting, plumbing, and drains systems. Inspect tanks for leaks and cracks. Inspect foundation and floors for cracking, unevenness, and coatings. Ensure floor grates are not damaged. Ensure area signage is legible.	
J.3.	Equipment: Cyclone Vehicle Cleaning System*	Inspect for function. Inspect filter systems.	
J.4.	Equipment: 8 Station Lube System*	Inspect for function, corrosion, and leaks.	
J.5.	Equipment: Rotary Lift	Inspect for function, damage, loose wires, and corrosion.	
J.6.	Equipment: Air Compressor	Inspect for function. Inspect filter systems, leaks, condensation, loose wires and corrosion. Inspect switches and air/water separator.	
J.7.	Equipment: HQ GFI Fare Collection Safe	Inspect for condition and function.	
J.8.	Equipment: Backup Generator	Inspect for function and condition.	
J.9.	Equipment: HQ Security CCTV System	Inspect for condition and function.	
J.10.	Equipment: Radio System	Inspect for function, range, clarity, and loose wires/mounting hardware. Inspect antenna for corrosion.	
K.	Major Component: Site Grounds	Inspect the following items.	
K.1.	Sub-Component: Fencing & Gates	Inspect for damage and corrosion, proper locking, and secure mounting.	
K.2.	Sub-Component: Roadways	Inspect asphalt and curbs for cracking, settling, and pot holes. Check for proper drainage.	
K.3.	Sub-Component: Signage	Inspect for missing signs. Are signs clean and legible?	
K.4.	Sub-Component: Pavement Markings	Inspect for faded pave lines for parking spaces, disability parking, and no-parking/fire lane areas.	
K.5.	Sub-Component: Structural/Surface	Inspect for settling and cracks, painted and coated surfaces.	
K.6.	Sub-Component: Sidewalk	Inspect for cracking, settling, decaying concrete, and craters. Inspect ADA pave cuts.	
K.7.	Sub-Component: Access Control Devices	Inspect for function, loose wiring, and corrosion.	
K.8.	Sub-Component: Landscaping	Inspect for damaged and dead grass and shrubs, overgrown weeds, and proper drainage.	
K.9.	Sub-Component: Mechanical Systems	Inspect utility hookups for loose wires, secure mounting, corrosion, and damage.	
K.10.	Sub-Component: Exterior Lighting	Inspect light posts and perimeter lights for function, burned out bulbs, and secure mounting.	

APPENDIX I

MONTHLY FACILITY INSPECTION FORM

Facilities Management - Prevention Maintenance Checklist

Date: _____ Arival Time: _____ Departure Time: _____ Work Order #:_____ Building:_____

No.	Description	Frequency	Satisfied	Repaired
	PLUMBING			
1	Leaking Faucets	Monthly	☐Y ☐N	☐Y ☐N
2	Leaking Water Lines	Monthly	☐Y ☐N	☐Y ☐N
3	Leaking Drain Lines	Monthly	☐Y ☐N	☐Y ☐N
4	Toilets	Monthly	☐Y ☐N	☐Y ☐N
5	Broken Tank Covers	Monthly	☐Y ☐N	☐Y ☐N
6	Broken Toilet Seats	Monthly	☐Y ☐N	☐Y ☐N
7	Drinking Fountains	Monthly	☐Y ☐N	☐Y ☐N
8	Proper Water Temp	Biweekly	☐Y ☐N	☐Y ☐N
9	Fixture Caulking	Monthly	☐Y ☐N	☐Y ☐N
10	Water Heater(s)	Biweekly	☐Y ☐N	☐Y ☐N
11	Floor Drains	Monthly	☐Y ☐N	☐Y ☐N
	ELECTRICAL			
12	Exit Lighting	Monthly	☐Y ☐N	☐Y ☐N
13	Interior Lighting	Biweekly	☐Y ☐N	☐Y ☐N
14	Exterior Lighting	Biweekly	☐Y ☐N	☐Y ☐N
15	Timer and Photo Cells	Biweekly	☐Y ☐N	☐Y ☐N
16	Cover Plates	Biweekly	☐Y ☐N	☐Y ☐N
17	Exhaust Fans	Quarterly	☐Y ☐N	☐Y ☐N
	LIFE SAFETY			
18	Emergency Lighting	Monthly	☐Y ☐N	☐Y ☐N
19	Fire Sprinklers	Monthly	☐Y ☐N	☐Y ☐N
20	Fire Alarm System	Monthly	☐Y ☐N	☐Y ☐N
21	Extinguishers Current	Monthly	☐Y ☐N	☐Y ☐N
22	Security System	Monthly	☐Y ☐N	☐Y ☐N
23	Carbon Monoxide Detectors	Monthly	☐Y ☐N	☐Y ☐N
24	Elevators	Weekly	☐Y ☐N	☐Y ☐N
25	Heat Trace	Weekly	☐Y ☐N	☐Y ☐N
26	Drip Drums	Weekly	☐Y ☐N	☐Y ☐N
	HEATING AND COOLING			
27	Filter(s) Change	Monthly	☐Y ☐N	☐Y ☐N
28	Evap/Cond Clean	Semi Annual	☐Y ☐N	☐Y ☐N
29	T-Stat(s) Function	Quarterly	☐Y ☐N	☐Y ☐N
30	Exhaust Fans	Quarterly	☐Y ☐N	☐Y ☐N
	SHOP SAFETY			
31	Storage Tanks and Drum Condition	Weekly	☐Y ☐N	☐Y ☐N
32	Eyewash Station	Weekly	☐Y ☐N	☐Y ☐N
33	Flamable Products Stored in Cabine	Weekly	☐Y ☐N	☐Y ☐N
34	Sight Protection	Weekly	☐Y ☐N	☐Y ☐N
35	Hearing Protection	Weekly	☐Y ☐N	☐Y ☐N
36	Vehicle Exhaust System	Weekly	☐Y ☐N	☐Y ☐N

No.	Description	Frequency	Satisfied	Repaired
	BUILDING INTERIOR			
37	Broken Windows	Biweekly	☐Y ☐N	☐Y ☐N
38	Window Operation	Monthly	☐Y ☐N	☐Y ☐N
39	Painting	Quarterly	☐Y ☐N	☐Y ☐N
40	Alliance Walls	Quarterly	☐Y ☐N	☐Y ☐N
41	Baseboards	Quarterly	☐Y ☐N	☐Y ☐N
42	Door Casings	Quarterly	☐Y ☐N	☐Y ☐N
43	Casework Secure	Biweekly	☐Y ☐N	☐Y ☐N
44	Interior Doors	Quarterly	☐Y ☐N	☐Y ☐N
45	Exterior Doors	Quarterly	☐Y ☐N	☐Y ☐N
46	Door Locks	Monthly	☐Y ☐N	☐Y ☐N
47	Door Closures	Monthly	☐Y ☐N	☐Y ☐N
48	Ceiling	Monthly	☐Y ☐N	☐Y ☐N
49	Door Stops	Quarterly	☐Y ☐N	☐Y ☐N
50	Window Locks	Monthly	☐Y ☐N	☐Y ☐N
51	Entry Lock Latches	Monthly	☐Y ☐N	☐Y ☐N
52	Carts and Shelving	Quarterly	☐Y ☐N	☐Y ☐N
53	Mold/Moisture	Biweekly	☐Y ☐N	☐Y ☐N
	BUILDING EXTERIOR			
54	Signs	Biweekly	☐Y ☐N	☐Y ☐N
55	Downspouts Clear	Monthly	☐Y ☐N	☐Y ☐N
56	Gutter Clear	Monthly	☐Y ☐N	☐Y ☐N
57	Exterior Paint	Quarterly	☐Y ☐N	☐Y ☐N
58	Broken Concrete	Quarterly	☐Y ☐N	☐Y ☐N
59	Asphalt Repair	Semi Annual	☐Y ☐N	☐Y ☐N
60	Parking Lot Striping	Monthly	☐Y ☐N	☐Y ☐N
61	Screens/Guards	Monthly	☐Y ☐N	☐Y ☐N
62	Drainage System	Semi Annual	☐Y ☐N	☐Y ☐N
63	Roof	Monthly	☐Y ☐N	☐Y ☐N
64	Emergency #800 Window/Door Stickers	Quarterly	☐Y ☐N	☐Y ☐N
	GROUNDS			
65	Fencing	Biweekly	☐Y ☐N	☐Y ☐N
66	Gates	Biweekly	☐Y ☐N	☐Y ☐N
67	Gate Locks	Biweekly	☐Y ☐N	☐Y ☐N
68	Wire Ties	Biweekly	☐Y ☐N	☐Y ☐N
69	Bottom Rails	Biweekly	☐Y ☐N	☐Y ☐N
70	End Caps	Biweekly	☐Y ☐N	☐Y ☐N
71	Trees and Shrubs	Biweekly	☐Y ☐N	☐Y ☐N
72	Lawn	Biweekly	☐Y ☐N	☐Y ☐N
73	Irrigation System	Biweekly	☐Y ☐N	☐Y ☐N
	MISC.			
74	Generators	Weekly	☐Y ☐N	☐Y ☐N
75	Parking Gates	Weekly	☐Y ☐N	☐Y ☐N

APPENDIX J

LONG RANGE CAPITAL IMPROVEMENT PROGRAM

BERKS AREA REGIONAL TRANSIT AUTHORITY
STATE OF GOOD REPAIR
LONG RANGE CAPITAL IMPROVEMENT PROGRAM

ANNUAL APPORTIONMENT 5307 - $3,547,792, plus Section 5339-$360,205, plus CMAQ Flex-$1,000,000=$4,907997 -FY 2017

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2017	REPLACE 6 - 2005 BUSES - HYBRIDS	$883,218	$213,739	$7,121	$1,104,022		
	REPLACE 5 PARATRANSIT BUSES	$260,000	$62,920	$2,096	$325,000		
	ITS FACILITY UPGRADES	$40,000	$9,680	$323	$50,000		
	FACILITY BUS STORAGE EXPANSION	$2,000,000	$484,000	$16,125	$2,500,000		
	PURCHASE/REPLACE BUS SHELTERS	$50,000	$12,100	$403	$62,500		
	TDP UPDATE	$70,000	$16,940	$564	$87,500		
	BTC UPGRADES-ROOF	$250,000	$60,500	$2,016	$312,500		
	ADA SERVICE - 10%	$354,779	$85,857	$2,860	$443,474		
	TOTAL	**$3,907,997**	**$945,735**	**$31,508**	**$4,884,996**	**$4,907,997**	**$3,830,406**
2018	REPLACE 7 - 2006 BUSES - HYBRIDS	$2,052,658	$496,743	$16,550	$2,565,822		
	REPLACE 9 PARATRANSIT VANS	$317,549	$76,847	$2,560	$396,936		
	BTC UPGRADES-ROOF	$630,000	$152,460	$5,079	$787,500		
	RENOVATE/EXPAND BUS STORAGE AREA	$400,000	$96,800	$3,225	$500,000		
	REPLACE BUS SHELTERS	$80,000	$19,360	$645	$100,000		
	ITS FACILITY UGRADES	$80,000	$19,360	$645	$100,000		
	ADA SERVICE - 10%	$333,333	$80,667	$2,687	$416,666		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	TOTAL	**$3,893,539**	**$942,236**	**$31,392**	**$4,866,924**	**$4,907,997**	**$1,652,469**
2019		$0	$0	$0	$0		
	REPLACE 15 - PARATRANSIT VANS	$902,231	$218,340	$7,274	$1,127,788		
	REPLACE 2004 MAINTENANCE PICKUP	$36,000	$8,712	$290	$45,000		
	RENOVATE/EXPAND BUS STORAGE AREA	$4,052,732	$980,761	$32,675	$5,065,915		
	COMPUTER HARDWARE/SOFTWARE	$24,000	$5,808	$194	$30,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$5,368,187**	**$1,299,101**	**$43,281**	**$6,710,234**	**$4,907,997**	**$1,192,279**
2020	REPLACE 7 2007 BUSES - HYBRIDS	$3,950,792	$956,092	$31,853	$4,938,490		
	REPLACE 3 - PARATRANSIT VANS	$185,859	$44,978	$1,498	$232,324		
	REPLACE 2010 SUPERVISORY VEHICLE	$28,000	$6,776	$226	$35,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$4,517,876**	**$1,093,326**	**$36,425**	**$5,647,345**	**$4,907,997**	**$1,582,400**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2021	REPLACE 8 2008 BUSES - HYBRIDS	$4,650,646	$1,125,456	$37,496	$5,813,308		
	REPLACE 25 - PARATRANSIT VANS	$1,595,294	$386,061	$12,862	$1,994,118		
	UPGRADE AVL SYSTEM	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$24,000	$5,808	$194	$30,000		
	UPGRADES PARKING GARAGE	$400,000	$96,800	$3,225	$500,000		
	REPLACE TWO COPIERS (2014)	$32,000	$7,744	$258	$40,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$7,455,165**	**$1,804,150**	**$60,107**	**$9,318,956**	**$4,907,997**	**($964,768)**
2022	REPLACE 7 2009 BUSES - HYBRIDS	$4,191,395	$1,014,318	$33,793	$5,239,244		
	REPLACE 5 - PARATRANSIT VANS	$328,631	$79,529	$2,650	$410,788		
	REPLACE ABOVE GROUND TANKS (1997)	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE OFFICE FURNITURE	$40,000	$9,680	$323	$50,000		
	PURCHASE (20) BUS SHELTERS	$200,000	$48,400	$1,613	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$5,913,250**	**$1,431,007**	**$47,676**	**$7,391,563**	**$4,907,997**	**($1,970,021)**
2023	REPLACE 4 2010 BUSES - HYBRIDS	$2,466,935	$596,998	$19,890	$3,083,669		
	REPLACE 2 - PARATRANSIT VANS	$135,396	$32,766	$1,092	$169,245		
	REPLACE 2004 SUPERVISORY VEHICLE	$32,000	$7,744	$258	$40,000		
	COMPUTER HARDWARE/SOFTWARE	$28,000	$6,776	$226	$35,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$3,015,556**	**$729,765**	**$24,313**	**$3,769,445**	**$4,907,997**	**($77,580)**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2024	REPLACE 15 - PARATRANSIT VANS	$1,045,932	$253,116	$8,433	$1,307,416		
	REPLACE BUS WASH	$200,000	$48,400	$1,613	$250,000		
	REPLACE FAREBOX SYSTEM	$1,000,000	$242,000	$8,063	$1,250,000		
	REPLACE COMMUNICATIONS EQUIP.	$200,000	$48,400	$1,613	$250,000		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	FRANKLIN ST STATION UPGRADES	$200,000	$48,400	$1,613	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$3,119,157**	**$754,836**	**$25,148**	**$3,898,947**	**$4,907,997**	**$1,711,260**
2025	REPLACE 3 - PARATRANSIT VANS	$215,462	$52,142	$1,737	$269,328		
	REPLACE BUS VACUUM SYSTEM	$120,000	$29,040	$968	$150,000		
	REPLACE 1981 TOW TRUCK	$240,000	$58,080	$1,935	$300,000		
	BTC UPGRADES/REPAIRS	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$1,360,687**	**$329,286**	**$10,971**	**$1,700,859**	**$4,907,997**	**$5,258,570**
2026		$0	$0	$0	$0		
	REPLACE 25 - PARATRANSIT VANS	$1,849,383	$447,551	$14,911	$2,311,729		
	REPLACE SERVICE TRUCK (2011)	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$2,242,608**	**$542,711**	**$18,081**	**$2,803,260**	**$4,907,997**	**$7,923,959**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2027	REPLACEMENT 3 2015 BUSES - HYBRIDS	$2,082,418	$503,945	$16,789	$2,603,023		
	REPLACE 5 - PARATRANSIT VANS	$380,973	$92,195	$3,072	$476,216		
	REPLACE 2 2010 -SUPERVISORY VEHICLE	$80,000	$19,360	$645	$100,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$2,928,616**	**$708,725**	**$23,612**	**$3,660,770**	**$4,907,997**	**$9,903,340**
2028	REPLACEMENT 4 2016 BUSES - HYBRIDS	$2,859,854	$692,085	$23,058	$3,574,818		
	REPLACE 2 - PARATRANSIT VANS	$156,961	$37,985	$1,265	$196,201		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$3,370,040**	**$815,550**	**$27,171**	**$4,212,550**	**$4,907,997**	**$11,441,297**

YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL		
2029		$0	$0	$0	$0		
	REPLACE 15 - PARATRANSIT VANS	$1,212,522	$293,430	$9,776	$1,515,653		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	REPLACE TWO COPIERS (2021)	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$1,637,747**	**$396,335**	**$13,204**	**$2,047,184**	**$4,907,997**	**$14,711,547**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2030	REPLACE 7 2018 BUSES	$5,309,534	$1,284,907	$42,808	$6,636,917		
	REPLACE 3 - PARATRANSIT VANS	$249,780	$60,447	$2,014	$312,225		
	FACILITY UPGRADES	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE PORTABLE LIFTS	$120,000	$29,040	$968	$150,000		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$6,952,538**	**$397,607**	**$13,247**	**$2,053,756**	**$4,907,997**	**$12,667,006**
2031	REPLACE 10 2020 BUSES	$7,812,599	$1,890,649	$62,989	$9,765,749		
	REPLACE 25 - PARATRANSIT VANS	$2,143,942	$518,834	$17,286	$2,679,927		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$10,341,766**	**$2,502,707**	**$83,380**	**$12,927,207**	**$4,907,997**	**$7,233,237**
2032	REPLACE 7 2021 BUSES HYBRIDS	$5,632,884	$1,363,158	$45,415	$7,041,105		
	REPLACE 5 - PARATRANSIT VANS	$441,652	$106,880	$3,561	$552,065		
	PURCHASE (20) BUS SHELTERS	$240,000	$58,080	$1,935	$300,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$6,667,761**	**$1,613,598**	**$53,759**	**$8,334,701**	**$4,907,997**	**$5,473,473**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2033	REPLACE 8 2021 BUSES HYBRIDS	$6,630,709	$1,604,632	$53,460	$8,288,387		
	REPLACE 2 - PARATRANSIT VANS	$181,961	$44,034	$1,467	$227,451		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$6,852,670**	**$1,658,346**	**$55,250**	**$8,565,837**	**$4,907,997**	**$3,528,801**
2034	REPLACE 7 2022 BUSES HYBRIDS	$5,975,927	$1,446,174	$48,181	$7,469,908		
	REPLACE 15 - PARATRANSIT VANS	$1,405,646	$340,166	$11,333	$1,757,057		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$7,734,797**	**$1,871,821**	**$62,362**	**$9,668,497**	**$4,907,997**	**$702,000**
2035	REPLACE 4 2023 BUSES	$3,517,260	$851,177	$28,358	$4,396,575		
	REPLACE 3 - PARATRANSIT VANS	$289,563	$70,074	$2,335	$361,954		
	FRANKLIN ST STATION UPGRADES	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$4,600,048**	**$1,113,212**	**$37,088**	**$5,750,059**	**$4,907,997**	**$1,009,950**
2036							
	REPLACE 3 - PARATRANSIT VANS	$298,250	$72,176	$2,405	$372,812		
	FRANKLIN ST STATION UPGRADES	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$1,211,475**	**$293,177**	**$9,768**	**$1,514,343**	**$4,907,997**	**$4,706,472**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2037							
	REPLACE 3 - PARATRANSIT VANS	$307,197	$74,342	$2,477	$383,997		
	FRANKLIN ST STATION UPGRADES	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$1,100,422**	**$266,302**	**$8,872**	**$1,375,528**	**$4,907,997**	**$8,514,047**
2038							
	REPLACE 3 - PARATRANSIT VANS	$316,413	$76,572	$2,551	$395,517		
	FRANKLIN ST STATION UPGRADES	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE - 10%	$353,225	$85,480	$2,848	$441,531		
	TOTAL	**$1,109,638**	**$268,532**	**$8,946**	**$1,387,048**	**$4,907,997**	**$12,312,405**
	TOTAL TWENTY YEARS	**$88,780,531**	**$21,484,889**	**$715,793**	**$110,975,664**	**$93,251,943**	**$12,312,405**

RED ROSE TRANSIT AUTHORITY
STATE OF GOOD REPAIR
LONG RANGE CAPITAL IMPROVEMENT PROGRAM

(ANNUAL APPORTIONMENT 5307 - $4,514,332, PLUS SECTION 5339 - $455,598=$4,969,930)

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	PROJECTED FEDERAL FUNDING	FEDERAL SHORTFALL
2017	BEGIN REPLACE 8 - 2005 BUSES - HYBRIDS	$1,955,598	$473,255	$15,767	$2,444,498		
	REPLACE 9 PARATRANSIT BUSES	$450,000	$108,900	$3,628	$562,500		
	TDP UPDATE	$70,000	$16,940	$564	$87,500		
	QSS RENOVATIONS/UPGRADES	$700,000	$169,400	$5,644	$875,000		
	UPGRADE SECURITY OPS CENTER	$400,000	$96,800	$3,225	$500,000		
	EXPAND SOLAR ARRAY OPS CTR	$842,899	$203,982	$6,796	$1,053,624		
	ACCESS TO JOBS PROGRAM	$100,000	$100,000	$0	$200,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$451,433	$109,247	$3,640	$564,291		
	TOTAL	**$4,969,930**	**$1,278,523**	**$39,264**	**$6,287,413**	**$4,969,930**	**$3,068,294**
2018	REPLACE 6 2005 BUSES (INCL TROLLYS)	$3,820,418	$924,541	$30,802	$4,775,523		
	REPLACE 3 PARATRANSIT VANS	$180,199	$43,608	$1,453	$225,249		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	UPGRADE SECURITY OPS CTR	$91,301	$22,095	$736	$114,126		
	PURCHASE TWO SERVICE VEHICLES	$60,000	$14,520	$484	$75,000		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$4,701,243**	**$1,232,451**	**$36,896**	**$5,970,304**	**$4,969,930**	**$3,336,981**
2019	DESIGN/CONSTRUCT SR FACILITY	$6,400,000	$1,548,800	$51,600	$8,000,000		
	REPLACE 9 - PARATRANSIT VANS	$572,886	$138,638	$4,619	$716,108		
	REPLACE TELEPHONE SYSTEM	$60,000	$14,520	$484	$75,000		
	COMPUTER HARDWARE/SOFTWARE	$24,000	$5,808	$194	$30,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$7,606,211**	**$1,935,453**	**$60,317**	**$9,601,514**	**$4,969,930**	**$700,700**
2020	REPLACE 6 2007 BUSES - HYBRIDS	$3,381,300	$818,275	$27,262	$4,226,626		
	REPLACE 9 - PARATRANSIT VANS	$590,073	$142,798	$4,757	$737,591		
	FACILITY UPGRADES	$400,000	$96,800	$3,225	$500,000		
	CONSTRUCT SR FACILITY	$400,000	$96,800	$3,225	$500,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$5,320,698**	**$1,382,359**	**$41,890**	**$6,744,622**	**$4,969,930**	**$349,932**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2021	REPLACE 3 2009 BUSES	$1,741,370	$421,411	$14,040	$2,176,712		
	REPLACE 9 - PARATRANSIT VANS	$607,775	$147,081	$4,900	$759,718		
	REPLACE TOW MOTOR	$24,000	$5,808	$194	$30,000		
	UPGRADE AVL SYSTEM	$400,000	$96,800	$3,225	$500,000		
	COMPUTER HARDWARE/SOFTWARE	$60,000	$14,520	$484	$75,000		
	REPLACE COPIER -2012	$24,000	$5,808	$194	$30,000		
	UPGRADE PARKING GARAGE	$400,000	$96,800	$3,225	$500,000		
	SHOP EQUIPMENT	$80,000	$19,360	$645	$100,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$3,886,469**	**$1,035,276**	**$30,327**	**$4,951,837**	**$4,969,930**	**$1,433,393**
2022	REPLACE 1-2010 BUS	$597,870	$144,685	$4,820	$747,338		
	REPLACE 9 - PARATRANSIT VANS	$626,008	$151,494	$5,047	$782,510		
	REPLACE ABOVE GROUND TANKS (1997)	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE OFFICE FURNITURE	$40,000	$9,680	$323	$50,000		
	PURCHASE (20) BUS SHELTERS	$200,000	$48,400	$1,613	$250,000		
	REPLACE COPIER -2014	$24,000	$5,808	$194	$30,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$2,837,203**	**$781,353**	**$21,867**	**$3,640,254**	**$4,969,930**	**$3,566,120**
2023	REPLACE 9 - PARATRANSIT VANS	$644,788	$156,039	$5,199	$805,985		
	REPLACE SKID LOADER	$40,000	$9,680	$323	$50,000		
	COMPUTER HARDWARE/SOFTWARE	$28,000	$6,776	$226	$35,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$1,262,113**	**$400,181**	**$9,168**	**$1,671,391**	**$4,969,930**	**$7,273,937**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2024	REPLACE 9 - PARATRANSIT VANS	$664,132	$160,720	$5,355	$830,165		
	REPLACE 2 2012 BUSES BYBRIDS	$1,268,561	$306,992	$10,228	$1,585,701		
	REPLACE BUS WASH	$200,000	$48,400	$1,613	$250,000		
	REPLACE FAREBOX SYSTEM	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE COMMUNICATIONS EQUIP.	$200,000	$48,400	$1,613	$250,000		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$3,802,018**	**$1,014,838**	**$29,646**	**$4,846,272**	**$4,969,930**	**$8,441,849**
2025	REPLACE 9 - PARATRANSIT VANS	$684,056	$165,542	$5,515	$855,070		
	REPLACE 3 2013 BUSES BYBRIDS	$1,959,927	$474,302	$15,802	$2,449,909		
	REPLACE BUS VACUUM SYSTEM	$120,000	$29,040	$968	$150,000		
	REPLACE 2005 TOW TRUCK	$240,000	$58,080	$1,935	$300,000		
	QSS PHASE I FACILITY UPGRADES	$1,600,000	$387,200	$12,900	$2,000,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	REPLACE RADIO SYSTEM	$120,000	$29,040	$968	$150,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$5,305,308**	**$1,378,634**	**$41,766**	**$6,725,385**	**$4,969,930**	**$8,106,471**
2026	REPLACE 9 - PARATRANSIT VANS	$704,578	$170,508	$5,681	$880,722		
	BEGIN REPLACEMENT 10 BUSES - (4)	$2,691,633	$651,375	$21,701	$3,364,541		
	REPLACE SERVICE TRUCK (2016)	$28,000	$6,776	$226	$35,000		
	REPLACE WASTE OIL BURNERS OPS CTR	$160,000	$38,720	$1,290	$200,000		
	SHOP EQUIPMENT	$80,000	$19,360	$645	$100,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$4,213,535**	**$1,114,426**	**$32,964**	**$5,360,669**	**$4,969,930**	**$8,862,866**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2027	REPLACE 9 - PARATRANSIT VANS	$725,715	$175,623	$5,851	$907,144		
	BEGIN REPLACEMENT 10 BUSES (6)	$2,772,382	$670,916	$22,352	$3,465,478		
	REPLACE 2-SUPERVISORY VEHICLE (2017)	$56,000	$13,552	$452	$70,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	REPLACE GARAGE SWEEPER	$40,000	$9,680	$323	$50,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$4,175,422**	**$1,105,202**	**$32,657**	**$5,313,027**	**$4,969,930**	**$9,657,374**
YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL		
2028	REPLACE 9 - PARATRANSIT VANS	$747,486	$180,892	$6,027	$934,358		
	REPLACEMENT 4 2016 BUSES	$2,855,554	$691,044	$23,023	$3,569,442		
	REPLACE 2 SERVICE VEHICLE (2018)	$64,000	$15,488	$516	$80,000		
	REPLACE COPIER 2021	$32,000	$7,744	$258	$40,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$4,248,365**	**$1,122,854**	**$33,245**	**$5,404,206**	**$4,969,930**	**$10,378,940**
2029	REPLACE 9 - PARATRANSIT VANS	$769,911	$186,318	$6,207	$962,389		
	REPLACE 8 2017 BUSES HYBRID	$5,882,440	$1,423,551	$47,427	$7,353,050		
	REPLACE HIGH LIFT	$40,000	$9,680	$323	$50,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	UPGRADES SOLAR PANELS -2009	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE COPIER 2022	$32,000	$7,744	$258	$40,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$8,105,676**	**$2,056,324**	**$64,344**	**$10,225,845**	**$4,969,930**	**$7,243,194**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2030	REPLACE 9 - PARATRANSIT VANS	$793,008	$191,908	$6,394	$991,260		
	REPLACE 3 2018 BUSES HYBRIDS	$2,272,093	$549,846	$18,319	$2,840,116		
	OPERATIONS FACILITY UPGRADES	$1,600,000	$387,200	$12,900	$2,000,000		
	REPLACE PORTABLE LIFTS	$120,000	$29,040	$968	$150,000		
	REPLACE SOLAR PANELS (624-2009)	$800,000	$193,600	$6,450	$1,000,000		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$6,254,426**	**$1,608,321**	**$49,418**	**$7,911,782**	**$4,969,930**	**$5,958,698**
2031	REPLACE 9 - PARATRANSIT VANS	$816,798	$197,665	$6,585	$1,020,998		
	REPLACE 2 2019 BUSES HYBRIDS	$1,560,170	$377,561	$12,579	$1,950,213		
	QSS PHASE II FACILITY- UPGRADES	$800,000	$193,600	$6,450	$1,000,000		
	COMPUTER HARDWARE/SOFTWARE	$32,000	$7,744	$258	$40,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$3,758,293**	**$1,004,257**	**$29,293**	**$4,791,617**	**$4,969,930**	**$7,170,335**
2032	REPLACE 9 - PARATRANSIT VANS	$841,302	$203,595	$6,783	$1,051,628		
	REPLACE 6 2020 BUSES HYBRIDS	$4,820,926	$1,166,664	$38,869	$6,026,157		
	PURCHASE (20) BUS SHELTERS	$240,000	$58,080	$1,935	$300,000		
	SHOP EQUIPMENT	$80,000	$19,360	$645	$100,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$6,531,553**	**$1,675,386**	**$51,653**	**$8,258,191**	**$4,969,930**	**$5,608,711**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2033	REPLACE 9 - PARATRANSIT VANS	$866,541	$209,703	$6,986	$1,083,177		
	REPLACE 3 2021 BUSES HYBRIDS	$7,448,331	$1,802,496	$60,052	$9,310,413		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$8,904,197**	**$2,249,566**	**$70,782**	**$11,223,996**	**$4,969,930**	**$1,674,444**
2034	REPLACE 9 - PARATRANSIT VANS	$892,538	$215,994	$7,196	$1,115,672		
	REPLACE 1 2022 BUSES HYBRIDS	$852,420	$206,286	$6,873	$1,065,525		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$2,294,283**	**$649,966**	**$17,490**	**$2,961,603**	**$4,969,930**	**$4,350,092**
2035	REPLACE 9 - PARATRANSIT VANS	$919,314	$222,474	$7,412	$1,149,142		
	QSS PHASE I FACILITY UPGRADES	$800,000	$193,600	$6,450	$1,000,000		
	COMPUTER HARDWARE/SOFTWARE	$40,000	$9,680	$323	$50,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$1,389,325**	**$430,967**	**$10,194**	**$1,830,406**	**$4,969,930**	**$7,930,697**
2036	REPLACE 9 - PARATRANSIT VANS	$946,893	$229,148	$7,634	$1,183,617		
	REPLACE 2 2024 BUSES HYBRIDS	$1,808,665	$437,697	$14,582	$2,260,831		
	TDP UPDATE	$120,000	$29,040	$968	$150,000		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$3,424,883**	**$923,572**	**$26,605**	**$4,374,854**	**$4,969,930**	**$1,545,047**

FISCAL YEAR	CAPITAL NEEDS	FEDERAL	STATE	LOCAL	TOTAL	FEDERAL FUNDING	FEDERAL SHORTFALL
2037	REPLACE 9 - PARATRANSIT VANS	$975,300	$236,023	$7,863	$1,219,125		
	REPLACE 3 2025 BUSES HYBRIDS	$1,862,925	$450,828	$15,020	$2,328,656		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$3,387,550**	**$914,537**	**$26,304**	**$4,328,187**	**$4,969,930**	**$3,127,427**
2038	REPLACE 9 - PARATRANSIT VANS	$1,004,559	$243,103	$8,099	$1,255,699		
	ACCESS TO JOBS PROGRAM	$125,000	$125,000	$0	$250,000		
	QSS UPGRADES	$800,000	$193,600	$6,450	$1,000,000		
	REPLACE 2 SERVICE VEHICLES	$72,000	$17,424	$581	$90,000		
	PREVENTIVE MAINTENANCE	$0	$0	$0	$0		
	ADA SERVICE -10%	$424,325	$102,687	$3,421	$530,406		
	TOTAL	**$2,425,884**	**$681,814**	**$18,551**	**$3,126,105**	**$4,969,930**	**$5,671,473**
	TOTAL TWENTY YEARS	**$100,439,584**	**$24,306,379**	**$809,794**	**$125,549,480**	**$109,338,460**	**$5,671,473**

APPENDIX K

LANCASTER AND READING TRANSPORTATION IMPROVEMENT PRGRAM (TIP FFY 2019-2022)

Berks Area Regional Transportation Authority

MPMS #:102286 **County:**Berks **A/Q Status:**Exempt

Title:BARTA Operating Assist. **Exempt Code:**Operating assistance to transit agencies

Short Narrative:BARTA's estimate for state and local operating assistance for FY 2019 (2019-6), FY 2020 (2020-7), FY 2021 (2021-9) and FY 2022 (2022-9) are included on the 2019 TIP.

Narrative:BARTA's estimate for state and local operating assistance for FY 2019 (2019-6), FY 2020 (2020-7), FY 2021 (2021-9) and FY 2022 (2022-9) are included on the 2019 TIP. Funding amounts are based on the allocation to the Reading MPO by PennDOT.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 388	$ 405	$ 424
OTH-S	$ 9,021	$ 9,112	$ 9,142	$ 9,202
	$ 9,021	$ 9,500	$ 9,547	$ 9,626

Total FY 2019-2022 Cost $ 37,694

MPMS #:102289 **County:**Berks **A/Q Status:**Exempt

Title:BARTA ADA Services **Exempt Code:**Operating assistance to transit agencies

Short Narrative:BARTA estimates for providing complementary ADA services for FY 2019 (2019-1), FY 2020 (2020-1), FY 2021 (2021-2) and FY 2022 (2022-2), which are included on the 2019 TIP.

Narrative:BARTA estimates for providing complementary ADA services for FY 2019 (2019-1), FY 2020 (2020-1), FY 2021 (2021-2) and FY 2022 (2022-2), which are included on the 2019 TIP. Funding amounts are fiscally constrained by the allowable amount of 10% of BARTA's formula funds permitted to be expended for this service.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 2	$ 3	$ 3
OTH-S	$ 94	$ 94	$ 93	$ 93
5307	$ 376	$ 384	$ 384	$ 384
	$ 470	$ 480	$ 480	$ 480

Total FY 2019-2022 Cost $ 1,910

MPMS #:102300 **County:**Berks **A/Q Status:**Exempt

Title:BARTA Cap. Improv. Shop **Exempt Code:**Purch off., shop, & op. eq. for exist. facility

Short Narrative: During this TIP cycle, BARTA plans to upgrade & replace maintenance and fare collection shop equipment based on their useful life cycles.

Narrative: During this TIP cycle, BARTA plans to upgrade & replace maintenance and shop equipment based on the 12-year cycle of the PennDOT Useful Life Standard. BARTA will be purchasing a replacement Currency Counter used for counting fares at the operations center/shop. FY2019 (2019-9), FY2020 (2020-10), FY2021 (2021-12) and FY2022 (2022-12).

Berks Area Regional Transportation Authority

TIP Program Years ($000)				
Fund	**2019**	**2020**	**2021**	**2022**
LOC	$ 2	$ 4	$ 2	$ 0
OTH-S	$ 48	$ 121	$ 48	$ 11
5307	$ 0	$ 0	$ 0	$ 44
	$ 50	$ 125	$ 50	$ 55

Total FY 2019-2022 Cost $ 280

Berks Area Regional Transportation Authority

MPMS #:102301 **County:**Berks **A/Q Status:**Exempt

Title:BARTA Cap. Impr. IT Equip **Exempt Code:**Purch off., shop, & op. eq. for exist. facility

Short Narrative: During this TIP cycle, BARTA plans to maintain its plan of upgrading/replacing office/computer hardware, software, and communications/security equipment.

Narrative: During this TIP cycle, BARTA plans to maintain its plan of upgrading/replacing office/computer hardware, software, and communications/security equipment. The replacement cycle is 4 years based on the PennDOT Useful Life Standard. FY2019 (2019-8), FY2020 (2020-9), FY2021 (2021-11), and FY2022 (2022-11).

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 2	$ 1	$ 2	$ 0
OTH-S	$ 48	$ 34	$ 53	$ 4
5307	$ 0	$ 0	$ 0	$ 16
	$ 50	$ 35	$ 55	$ 20

Total FY 2019-2022 Cost $ 160

MPMS #:102302 **County:**Berks **A/Q Status:**Exempt

Title:BARTA Facility Improve **Exempt Code:**Recon. or renov. transit bldgs & structures

Short Narrative: During this TIP cycle, BARTA plans to upgrade the BARTA Transportation Center (BTC), parking garage, and operations center and replace above ground tanks.

Narrative: During this TIP cycle, BARTA plans to upgrade the BARTA Transportation Center (BTC), parking garage, and operations center and replace above ground tanks that were installed in 1997. FY 2020 (2020-4), FY 2021 (2021-6), and FY 2022 (2022-4).

The BTC originally opened in 2003. After seventeen years of operation, there are systems and components of the BTC that need to be upgraded. The HVAC system will be upgraded and heat curtains will be replaced at the entrances to the customer waiting area. There will also be upgrades to the sprinkler system, public address system and the gates to the underground parking garage.

The Parking Garage located on Franklin Street was originally opened in 2005. This project will provide for the upgrades and installation of parking garage control equipment.

The last major rehabilitation of the Operations Center located at 1700 North 11th Street was completed in 2005. Construction on the expansion and renovation of the Bus Storage Facility will begin in the spring of 2018 with a scheduled completion in early 2019. This project includes the replacement of the above ground and underground storage tanks, the addition of solar panels to the bus storage facility roof, the replacement of the security gates, and paving of the bus staging area and administrative office parking area.

Berks Area Regional Transportation Authority

TIP Program Years ($000)				
Fund	**2019**	**2020**	**2021**	**2022**
LOC	$ 0	$ 5	$ 8	$ 14
OTH-S	$ 0	$ 136	$ 226	$ 424
5307	$ 0	$ 564	$ 932	$ 1,752
	$ 0	$ 705	$ 1,166	$ 2,190

Total FY 2019-2022 Cost $ 4,061

MPMS #: 102303 **County:** Berks **A/Q Status:** Exempt

Title: BARTA Non-Rev. vehicles **Exempt Code:** Purchase of support vehicles

Short Narrative: During this TIP cycle, BARTA plans to purchase (3) replacement Service Vehicles.

Narrative: During this TIP cycle, BARTA plans to purchase (3) replacement Service Vehicles that have reached the end of their useful service life and are eligible for replacement. FY 2019 (2019-7), FY 2020 (2020-11), and FY 2021 (2021-10).

FY 2019 - Replace (1) 2004 Ford F-250 Pick-up Truck with a 2019 Pick-up Truck.
FY 2020 - Replace (1) 2008 Ford Escape supervisory vehicle with a 2020 supervisory vehicle.
FY 2021 - Replace (1) 2010 Ford Escape supervisory vehicle with a 2021 supervisory vehicle.

TIP Program Years ($000)				
Fund	**2019**	**2020**	**2021**	**2022**
LOC	$ 1	$ 1	$ 1	$ 0
OTH-S	$ 44	$ 34	$ 29	$ 0
	$ 45	$ 35	$ 30	$ 0

Total FY 2019-2022 Cost $ 110

MPMS #: 106740 **County:** Berks **A/Q Status:** Exempt

Title: Purchase Paratransit Vans **Exempt Code:** Purchase of support vehicles

Short Narrative: Replace twelve paratransit vehicles exceeding their useful lives.

Narrative: During this TIP cycle, BARTA will be replacing (12) paratransit vehicles. Once vehicles have reached the end of their useful life they become eligible for replacement. FY 2019 (2019-2) and FY 2020 (2020-2)

FY 2019 - Replace (6) 2014 Ford Challenger 15-passenger vehicles with 2019 Ford Startrans 15-passenger vehicles.
FY 2020 - Replace (6) 2015 Ford Challenger 15-passenger vehicles with 2020 15-passenger vehicles.

TIP Program Years ($000)				
Fund	**2019**	**2020**	**2021**	**2022**
LOC	$ 0	$ 3	$ 0	$ 0
OTH-S	$ 100	$ 94	$ 0	$ 0
5307	$ 401	$ 389	$ 0	$ 0
	$ 501	$ 486	$ 0	$ 0

Total FY 2019-2022 Cost $ 987

MPMS #: 106741 **County:** Berks **A/Q Status:** Exempt

Berks Area Regional Transportation Authority

Title: Replace Telephone System

Exempt Code: Const. or renov. of power, signal, & comm systems

Short Narrative: Replace/upgrade telephone system to ensure reliability and improved customer service.

Narrative: Replace/upgrade telephone system to ensure reliability and improved customer service.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 2	$ 0	$ 0	$ 0
OTH-S	$ 73	$ 0	$ 0	$ 0
	$ 75	$ 0	$ 0	$ 0

Total FY 2019-2022 Cost $ 75

Berks Area Regional Transportation Authority

MPMS #:106742 **County:**Berks **A/Q Status:**Exempt

Title: Purchase Office Equipment **Exempt Code:**Purch off., shop, & op. eq. for exist. facility

Short Narrative: Upgrade and replace office equipment, furniture, and copiers.

Narrative: Upgrade and replace office equipment, furniture, and copiers that have exceeded their useful life and to support improved office operations. FY 2020 (2020-08), FY 2021 (2021-13) and FY 2022 (2022-10).

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 1	$ 1	$ 0
OTH-S	$ 0	$ 24	$ 39	$ 10
5307	$ 0	$ 0	$ 0	$ 40
	$ 0	$ 25	$ 40	$ 50

Total FY 2019-2022 Cost $ 115

MPMS #:110608 **County:**Berks **A/Q Status:**Exempt

Title: Preventive Maintenance **Exempt Code:**Rehabilitation of transit vehicles

Short Narrative:BARTA estimates for federal, state and local preventive maintenance for FFY 2021 and 2022, are included on the TIP. Funding amounts are fiscally constrained by the definition of preventive maintenance.

Narrative:BARTA estimates for federal, state and local preventive maintenance for FFY 2021 and 2022, are included on the TIP. Funding amounts are fiscally constrained by the definition of preventive maintenance.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 0	$ 2	$ 3
OTH-S	$ 0	$ 0	$ 63	$ 97
5307	$ 0	$ 0	$ 260	$ 400
	$ 0	$ 0	$ 325	$ 500

Total FY 2019-2022 Cost $ 825

MPMS #:110609 **County:**Berks **A/Q Status:**Exempt

Title:BARTA Vehicle Replacement **Exempt Code:**Purch new buses & cars for rplcmnt or mnr expan.

Short Narrative: During this TIP cycle, BARTA will be replacing 25 Diesel Fixed Route Buses with Electric Hybrid Fixed Route Buses. In addition, BARTA will be replacing 19 Shared Ride Vehicles.

Rpt# TIP232 Current Date: 2/16/18

Berks Area Regional Transportation Authority

Narrative: During this TIP cycle, BARTA will be replacing 25 diesel fixed route buses with electric hybrid fixed route buses. In addition, BARTA will be replacing 19 shared ride vehicles. Once the vehicles have reached the end of their useful life of 12 years and/or 500,000 miles, they become eligible for replacement. FY 2019 (2019-3/4/5), FY 2020 (2020-3/5/6), FY 2021 (2021-3/4/7/8), and FY 2022 (2022-3/7/8).

FY 2019 - Replace (8) 2008 Gillig Fixed Route Buses with 2020 Gillig Electric Hybrid Fixed Route Buses.
FY 2020 - Replace (9) 2009 Gillig Fixed Route Buses with 2021 Electric Hybrid Fixed Route Buses.
FY 2021 - Replace (5) 2010 Gillig Fixed Route Buses with 2022 Electric Hybrid Fixed Route Buses.
FY 2022 - Replace (3) 2011 Gillig Fixed Route Buses with 2023 Electric Hybrid Fixed Route Buses.

FY 2021 - Replace (7) shared ride vehicles.
FY 2022 - Replace (12) shared ride vehicles.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 34	$ 31	$ 23	$ 17
OTH-S	$ 1,032	$ 918	$ 666	$ 507
CAQ	$ 900	$ 900	$ 900	$ 900
5307	$ 2,980	$ 2,500	$ 1,460	$ 800
5339	$ 385	$ 395	$ 395	$ 395
	$ 5,331	$ 4,744	$ 3,444	$ 2,619

Total FY 2019-2022 Cost $ 16,138

Berks Area Regional Transportation Authority

MPMS #:110613 **County:**Berks **A/Q Status:**Exempt

Title: Upgrade AVL System **Exempt Code:**Const. or renov. of power, signal, & comm systems

Short Narrative: Upgrading the AVL system, which is nearing the end of its useful life.

Narrative: Upgrading the AVL system, which is nearing the end of its useful life. SCTA's AVL system uses GPS technology to track the location of each bus in operation on any given route. This information is used by management to monitor bus operations. Customers are able to track real-time bus information through BARTA's Bus Finder system. The Bus Finder system went live in May 2015. As a hardware and software technology based system, the useful life for the AVL system is 4 years based on the PennDOT Useful Life Standard.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 0	$ 6	$ 0
OTH-S	$ 0	$ 0	$ 194	$ 0
5307	$ 0	$ 0	$ 800	$ 0
	$ 0	$ 0	$ 1,000	$ 0

Total FY 2019-2022 Cost $ 1,000

MPMS #:110614 **County:**Berks **A/Q Status:**Exempt

Title:TDP Update **Exempt Code:**Actvtys not leading to constr. (plan & tech study)

Short Narrative: Evaluate existing/potential services offered with the Transit Development Plan Update.

Narrative: This funding will support the development of the 2022 Transit Development Plan (TDP) for fixed-route bus and paratransit services in Berks and Lancaster Counties. The TDP will serve as a guide for meeting future demands for transit services and increasing the overall use of public transit in the region. Development of the TDP involves identifying demographics and travel trends, gathering input from riders, the public, and business representatives regarding existing services and future needs, establishing goals and strategies to address unmet transit needs and service issues, identifying and evaluating opportunities for potential growth (such as bus service connecting the cities of Reading and Lancaster), estimating the level of funding available to provide transit services over the life of the plan, and providing recommendations and an implementation plan to improve transit services and meet future needs.

TIP Program Years ($000)

Fund	2019	2020	2021	2022
LOC	$ 0	$ 0	$ 0	$ 2
OTH-S	$ 0	$ 0	$ 0	$ 48
5307	$ 0	$ 0	$ 0	$ 200
	$ 0	$ 0	$ 0	$ 250

Total FY 2019-2022 Cost $ 250

MPMS #:110615 **County:**Berks **A/Q Status:**Exempt

Title: Bus Shelter Replacement **Exempt Code:**Recon. or renov. transit bldgs & structures

Short Narrative: Upgrade/replace 25 bus shelters exceeding their useful life

Narrative: This project will provide for the upgrade/replacement of 25 bus shelters in the Reading operations area that have exceeded their useful life. Some of the current bus shelters have become worn-down and unsightly. New visibly appealing shelters will contribute to the retention of current riders and help to attract new riders to the system.

Berks Area Regional Transportation Authority

TIP Program Years ($000)				
Fund	**2019**	**2020**	**2021**	**2022**
LOC	$ 0	$ 0	$ 0	$ 2
OTH-S	$ 0	$ 0	$ 0	$ 48
5307	$ 0	$ 0	$ 0	$ 200
	$ 0	$ 0	$ 0	$ 250

Total FY 2019-2022 Cost $ 250

2019-2022 LANCASTER PUBLIC TRANSIT TIP

7-Feb-18

	MPMS	Project Title	Project Description	Cost
1	102410	Operating Assistance	Funds provided by PennDOT in FY 2019, 2020, 2021 and 2022 and used by SCTA to fund the operation of the public transportation service in Lancaster County	$28,213,393
2	102414	Queen St Station I Upgrade	Queen Street Station (QSS) opened for service in August 2005. This project provides for the targeted investment in the rehabilitation and upgrade of Station facilities and equipment that have reached the end of their useful life or are needed for the efficient operation of the facility. The improvements will include but are not limited to the upgrade of HVAC equipment; rehabilitation of retaining walls; and communicatiion enhancements. This is a continuation of the project completed in 2017 and addresses the remaining facility components.	$250,000
3	102417	ADA Services	As provided for under federal guidelines, this project funds the cost of providing ADA paratransit service complementary to existing fixed route service up to ten percent (10%) of SCTA's annual allocation of federal transit 5307 funds to the Lancaster urbanized area. SCTA is programming 10% of its annual allocation for ADA services in Lancaster County. The costs incurred in FY 2019, 2020, 2021 and 2022 are funded at an 80% Federal and 20% Non-federal level.	$2,421,875
4	102425	Computer/Security Upgrade	Project provides for the planned upgrades and expansion of the SCTA computer software/hardware and security systems to support SCTA Lancaster operations and changing technologies. Computer hardware/software and security equipment that has reached the end of its useful life will also be replaced.	$150,000
5	102426	Purchase Maintenance Equipment	SCTA has in place a program providing for the annual purchase of maintenance equipment to replace equipment that has reached the end of its useful life. Additional maintenance equipment will be purchased to support the maintenance of SCTA's buses and facilities based on the components on the new buses that are received and to support the required maintenance on facility structures and equipment.	$305,000
6	106686	Purchase Three (3) Buses	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life . The programmed FY 2019 5307 funds will be used to purchase three (3) electric hybrid buses for SCTA's Lancaster fixed route bus operation. The hybrid buses are expected to have a positive impact on SCTA's operating costs. These buses will replace 2009 vehicles that have reached the end of their 12 year useful life.	$1,250,000
7	106687	Purchase One (1) Bus	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life. The programmed FY 2019 5339 funds will be used to support the purchase of one (1) electric hybrid bus for SCTA's Lancaster fixed route bus operation. This bus will replaced a 2009 vehicle that has reached the end of its 12 year useful life.	$576,250
8	106689	Purchase Paratransit Vans	SCTA has in place a program providing for the annual replacement of vehicles in the shared ride fleet that reached the end of their useful life. The programmed FY 2019 5307 funds will be used to purchase thirteen (13) 15-passenger paratransit vehicles for SCTA's Lancaster Shared Ride Service. Vehicles purchased in 2014 will be replaced.	$1,000,000
9	106690	Replace Telephone System	The telephone/communication system will be upgraded and replaced to ensure reliability and improved customer service.	$75,000
10	106692	Purchase Paratransit Vans	SCTA has in place a program providing for the annual replacement of vehicles in the shared ride fleet that reached the end of their useful life. The FY 2020 5307 funds programmed will be used to purchase ten (10) 15-passenger paratransit vehicles for SCTA's Lancaster Shared Ride Service. Vehicles purchased in 2015 will be replaced.	$900,000
11	106693	Operations Center Upgrade	The rehabilitation of the Erick Road Operations Center was completed in 2010. This project will upgrade infrastructure and operating systems to ensure the facility will achieve its useful life and is operating efficiently. The improvements will include but are not limited to the upgrade of HVAC equipment; security gates and fencing upgrades; and equipment storage racks.	$625,000
12	106695	Purchase One (1) Bus	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life . The programmed FY 2020 5339 funds will be used towards the purchase of one (1) electric hybrid bus for SCTA's Lancaster fixed route bus operation. The hybrid bus is expected to have a positive impact on SCTA's operating costs. This bus will replace a 2009 vehicle that has reached the end of its 12 year useful life.	$591,250
13	106696	Replace Supervisory Vehicle	Service and supervisory vehicles are used to support maintenance, operations, service monitoring and administrative activities. This project will provide funding to replace one (1) 2007 supervisory vehicle that has reached the end of its useful service life.	$25,000
14	110255	Paratransit Facility	The project provides for land acquisition and the design and construction of a new operating facility for the Lancaster paratransit system and for the maintenance and enclosed storage of the paratransit fleet.	$9,169,250
15	110256	Bus Shelter Replacement Program	Bus Shelters are a transit service feature that encourages and helps retain riders. This project programs funding to upgrade/replace twenty-five (25) shelters exceeding their useful service life. SCTA is considering the purchase of solar shelters.	$250,000
16	110261	Lancaster Non-Vehicle Vehicle Replacement	Service and supervisory vehicles are used to support maintenance, operations, service monitoring and administrative activities. This project will provide funding to replace one (1) 2006 Maintenance pick-up truck exceeding its useful service life.	$32,000
17	110262	Purchase One (1) Bus	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life . The programmed FY 2021 5307 funds will be used to purchase one (1) electric hybrid bus for SCTA's Lancaster fixed route bus operation. The hybrid bus is expected to have a positive impact on SCTA's operating costs. This bus will replace a 2010 vehicle that has reached the end of its 12 year useful life.	$700,000
18	110263	Upgrade AVL System	SCTA's AVL system uses GPS technology to track the location of each bus operating on any given route. This information is used to monitor bus operations. Customers are able to track real-time bus information through RRTA's Bus Finder system. The Bus Finder system went live in the spring of 2015. As a hardware and software technology based system, the useful life for the AVL system is 4 years based on the PennDOT Useful Life Standard. This project provides for an upgrade to the AVL system based on technology changes and SCTA operating/customer needs.	$1,000,000

19	110265	QSS Parking Garage Upgrade	The QSS Parking Garage was opened in 2012. This project will upgrade and rehabilitate infrastructure (i.e. drains and expansion joints) to ensure the facility achieves its useful life. This project also provides for upgrading the equipment used by the customers and to support the operation to ensure reliability and to reflect changes in technology.	$1,465,125
20	110266	Fare Collection Equipment	This project provides for the upgrade/replacement of the fareboxes on the Lancaster fixed route buses and the fare collection support equipment that have exceeded their useful life. The purchase of new fareboxes will also enable SCTA to purchase fareboxes that reflect current technology	$937,500
21	110268	Purchase Paratransit Vans	SCTA has in place a program providing for the annual replacement of vehicles in the shared ride fleet that reached the end of their useful life. The programmed FY 2021 5307 funds will be used to purchase seventeen (17) paratransit vehicles for SCTA's Lancaster Shared Ride Service. Vehicles purchased in 2016 will be replaced.	$1,375,000
22	110270	Purchase One (1) Bus	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life . The programmed FY 2021 5339 funds will be used towards the purchase of one (1) electric hybrid buses for SCTA's Lancaster fixed route bus operation. The hybrid buses are expected to have a positive impact on SCTA's operating costs. The bus purchased will replace a 2010 vehicle that hasreached the end of its 12 year useful life.	$591,250
23	110271	Replace Supervisory Vehicle	Service and supervisory vehicles are used to support maintenance, operations, service monitoring and administrative activities. This project will provide funding to replace one (1) 2008 supervisory vehicle exceeding its useful service life.	$25,000
24	110273	Purchase Paratransit Vans	SCTA has in place a program providing for the annual replacement of vehicles in the shared ride fleet that reached the end of their useful life. The programmed FY 2022 5307 funds will be used to purchase eleven (11) paratransit vehicles for SCTA's Lancaster Shared Ride Service. Vehicles purchased in 2017 will be replaced.	$937,500
25	110274	Operations Center Upgrade	The rehabilitation of the Erick Road Operations Center was completed in 2010. This project will upgrade infrastructure and operating systems to ensure the facility will achieve its useful life and is operating efficiently. The improvements will include but are not limited to the upgrade of HVAC equipment; security gates and fencing upgrades; and equipment storage racks.	$1,562,500
26	110276	TDP Update	A Transit Development Plan Update reviews existing service, current demographics and projected plans to develop short-term and long-term service improvement plans. SCTA updates its Transit Development Plan every five (5) years. This project will provide funding for the next update.	$250,000
27	110277	Purchase Office Equipment	SCTA has in place a program providing for the regular replacement of office equipment that has exceeded it useful life or for the purchase of new or additional office equipment or furniture to support the operation of an efficient office.	$50,000
28	110278	Purchase One (1) Bus	SCTA has in place a program providing for the planned replacement of buses that have exceeded their useful life . The programmed FY 2022 5339 funds will be used towards the purchase one (1) electric hybrid bus for SCTA's Lancaster fixed route bus operation. The hybrid bus is expected to have a positive impact on SCTA's operating costs. This bus will replace a 2015 vehicle that has reached the end of its 12 year useful life.	$591,250
			TOTAL PROGRAMMED AMOUNT	$55,319,143

LANCASTER COUNTY TRANSPORTATION COORDINATING COMMITTEE (LCTCC)
RED ROSE TRANSIT AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2019

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2019-01	102417	ADA Services	80% ADA Funding	5307	1513	476,800	119,200	0	596,000
2019-02	106686	Purchase Three (3) Buses	Replace Three (3) 2009 Gillig Buses w/Hybrids	5307	1514*	1,000,000	240,938	9,062	1,250,000
2019-03	106689	Purchase Paratransit Vans	Replace Thirteen (13) 2014 Shared Ride Vehicles	5307	1514*	800,000	193,550	6,450	1,000,000
2019-04		Bus Shelter Replacement Program	Upgrade/replace Twenty-five (25) Bus Shelters exceeding useful life	5307	1514*	200,000	48,388	1,612	250,000
2019-05		Facility Expansion	Vehicle Maintenance/Storage Facility for Paratransit Vehicles	5307	1514*	2,291,200	554,327	18,473	2,864,000
2019-06	106687	Purchase One (1) Bus	Replace One (1) 2009 Gillig Bus w/Hybrid	5339	1514*	461,000	111,533	3,717	576,250
2019-07	102410	Operating Assistance	Non-federal Funding		1513	0	6,644,800	0	6,644,800
2019-08	102425	Computer Hardware/Software and Communications/Security	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	29,001	999	30,000
2019-09	102426	Purchase Maintenance Equipment	Upgrade & Replace Maintenance Equipment		1514*	0	72,502	2,498	75,000
2019-10	106690	Replace Telephone System	Replace/upgrade telephone system to ensure reliability and improved customer service		1514*		72,502	2,498	75,000
2019-11		Lancaster Non-Revenue Vehicle Replacement	Replace One (1) 2006 Maintenance Pick-up Truck exceeding useful life		1514*		30,934	1,066	32,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2019 SUBTOTAL						**5,229,000**	**8,117,675**	**46,375**	**13,393,050**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				4,768,000			4,768,000
		Federal Section 5339				461,000			461,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					6,764,000	0	6,764,000
		State funds - 1514*					1,353,675	46,375	1,400,050
		Local Funds							0
		ALL FUNDS				5,229,000	8,117,675	46,375	13,393,050
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				4,768,000			4,768,000
		Federal Section 5339				461,000			461,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					6,764,000		6,764,000
		Local Funds - Operating						0	0
		Local Funds - Capital						46,375	
		ALL FUNDS				5,229,000	6,764,000	46,375	12,039,375

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,353,675. The $1,353,675 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

LANCASTER COUNTY TRANSPORTATION COORDINATING COMMITTEE (LCTCC)
RED ROSE TRANSIT AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2020

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2020-01	102417	ADA Services	80% ADA Funding	5307	1513	486,900	117,672	4,053	608,625
2020-02		Facility Expansion	Vehicle Maintenance/Storage Facility for Paratransit Vehicles	5307	1514*	2,662,100	644,060	21,465	3,327,625
2020-03	106692	Purchase Paratransit Vans	Replace Ten (10) 2015 vehicles exceeding useful life	5307	1514*	720,000	174,195	5,805	900,000
2020-04	106693	Operations Center Upgrade	Upgrades to facility rehabilitated in 2010	5307	1514*	500,000	120,970	4,030	625,000
2020-05	102414	QSS I Upgrades	Upgrades to facility opened in 2005	5307	1514*	500,000	120,970	4,030	625,000
2020-06	106695	Purchase One (1) Bus	Replace One (1) 2009 Gillig Bus w/Hybrid	5339	1514*	473,000	114,436	3,814	591,250
2020-07	102410	Operating Assistance	Non-federal Funding		1513	0	6,714,328	386,357	7,100,685
2020-08	102425	Computer Hardware/Software and Communications/Security	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	38,668	1,332	40,000
2020-09	102247	Purchase Maintenance Equipment	Upgrade & Replace Maintenance Eqpt.		1514*	0	77,336	2,664	80,000
2020-10	106696	Replace Supervisory Vehicle	Replace One (1) 2007 Supervisory Vehicle exceeding useful life		1514*	0	24,168	832	25,000
		Fed Sect. 5307 Reserve				0			
		State App. 1513 Reserve Oper.					0		
FFY 2020 SUBTOTAL						**5,342,000**	**8,146,803**	**434,382**	**13,923,185**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5339				473,000			473,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					6,832,000	390,410	7,222,410
		State funds - 1514*					1,314,803	43,972	1,358,775
		Local Funds							0
		ALL FUNDS				5,342,000	8,146,803	434,382	13,923,185
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5309				473,000			473,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					6,832,000		6,832,000
		Local Funds - Operating						390,410	390,410
		Local Funds - Capital						43,972	
		ALL FUNDS				5,342,000	6,832,000	434,382	12,608,382

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,314,803. The $1,314,803 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

LANCASTER COUNTY TRANSPORTATION COORDINATING COMMITTEE (LCTCC)
RED ROSE TRANSIT AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2021

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				Fed	St.	Federal	State	Local	
2021-02		ADA Services	80% ADA Funding	5307	1513	486,900	117,672	4,053	608,625
2021-03		Purchase One (1) Bus	Replace One (1) 2010 Gillig Bus w/Hybrid	5307	1514*	560,000	135,485	4,515	700,000
2021-04		Upgrade AVL System	Upgrade AVL system exceeding its useful life	5307	1514*	800,000	193,550	6,450	1,000,000
2021-05		QSS Parking Garage Upgrades	Upgrade to facility opened in 2013	5307	1514*	1,000,000	240,938	9,062	1,250,000
2021-06		Fare Collection Equipment	Upgrade/replace fareboxes and fare collection support equipment	5307	1514*	750,000	181,453	6,047	937,500
2021-07		Purchase Paratransit Vans	Replace Seventeen (17) 2016 vehicles exceeding useful life	5307	1514*	1,100,000	266,130	8,870	1,375,000
2021-07		Facility Expansion	Vehicle Maintenance/Storage Facility for Paratransit Vehicles	5307	1514*	172,100	41,635	1,390	215,125
2021-08		Purchase One (1) Bus	Replace One (1) 2010 Gillig Bus w/Hybrid	5339	1514*	473,000	114,436	3,814	591,250
2021-09		Operating Assistance	Non-federal Funding		1513	0	6,783,328	405,878	7,189,206
2021-10		Computer Hardware/Software and Communications/Security	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	53,168	1,832	55,000
2021-11		Purchase Maintenance Equipment	Upgrade & Replace Maintenance Equipment and Tow Motor		1514*	0	96,667	3,333	100,000
2021-12		Replace Supervisory Vehicle	Replace One (1) 2008 Supervisory Vehicle exceeding useful life		1514*	0	24,168	832	25,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2021 SUBTOTAL						**5,342,000**	**8,248,630**	**456,076**	**14,046,706**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5339				473,000			473,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					6,901,000	409,931	7,310,931
		State funds - 1514*					1,305,995	46,145	1,352,140
		Local Funds							0
		ALL FUNDS				5,342,000	8,206,995	456,076	14,005,071
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5309				473,000			473,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					6,901,000		6,901,000
		Local Funds - Operating						409,931	409,931
		Local Funds - Capital						46,145	
		ALL FUNDS				5,342,000	6,901,000	456,076	12,699,076

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,305,995. The $1,305,995 is based on the projected needs to support its Lancaster operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the A89 funds by PennDOT.

LANCASTER COUNTY TRANSPORTATION COORDINATING COMMITTEE (LCTCC)
RED ROSE TRANSIT AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2022

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2022-02		ADA Services	80% ADA Funding	5307	1513	486,900	117,672	4,053	608,625
2022-03		Purchase Paratransit Vans	Replace Eleven (11) 2017 vehicles exceeding useful life	5307	1514*	750,000	181,453	6,047	937,500
2022-04		Operations Center Upgrade	Upgrade to Operations Center and replace Above Ground 1997 Tanks	5307	1514*	1,250,000	302,420	10,080	1,562,500
2022-05		Facility Expansion	Vehicle Maintenance/Storage Facility for Paratransit Vehicles	5307	1514*	2,082,100	503,740	16,785	2,602,625
2022-06		TDP Update	Evaluate existing/potential service with Transit Development Plan Update	5307	1514*	200,000	48,387	1,613	250,000
2022-07		Purchase One (1) Bus	Replace One (1) 2015 Gillig Bus w/Hybrid	5339	1514*	473,000	114,436	3,814	591,250
2020-08		Operating Assistance	Non-federal Funding		1513	0	6,852,328	426,374	7,278,702
2022-09		Computer Hardware/Software and Communications/Security	Upgrade & replace hardware, software and communications/ security equipment	5307	1514*	20,000	4,838	162	25,000
2022-10		Purchase Maintenance Equipment	Upgrade & Replace Maintenance Eqpt., including QSS Parking Garage Sweeper	5307	1514*	40,000	9,675	325	50,000
2022-11		Purchase Office Eqpt/Furniture	Upgrade & replace office furniture and equipment (i.e. 2012 Copier) exceeding useful life	5307	1514*	40,000	9,675	325	50,000
		Fed Sect. 5307 Reserve				0			
		State App. 1513 Reserve Oper.					0		
FFY 2022 SUBTOTAL						**5,342,000**	**8,144,624**	**469,578**	**13,956,202**

FUNDING SUMMARY

		FUNDS PROGRAMMED				Federal	State	Local	TOTAL
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5339				473,000			473,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					6,970,000	430,427	7,400,427
		State funds - 1514*					1,174,624	39,151	1,213,775
		Local Funds							0
		ALL FUNDS				5,342,000	8,144,624	469,578	13,956,202
		ALLOCATED FUNDS				**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				4,869,000			4,869,000
		Federal Section 5339				473,000			473,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					6,970,000		6,970,000
		Local Funds - Operating						430,427	430,427
		Local Funds - Capital						39,151	
		ALL FUNDS				5,342,000	6,970,000	469,578	12,781,578

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,174,624. The $1,174,624 is based on the projected needs to support its Lancaster operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the A89 funds by PennDOT.

RED ROSE TRANSIT AUTHORITY
FFY 2019-2022 TIP
FUNDING CATEGORY SUMMARY

Funding Source	FFY 2019	FFY 2020	FFY 2021	FFY 2022	Total
5307	4,768,000	4,869,000	4,869,000	4,869,000	19,375,000
5339	461,000	473,000	473,000	473,000	1,880,000
5310	0	0	0	0	0
CB	0	0	0	0	0
1514*	1,353,675	1,314,803	1,305,995	1,174,624	5,149,097
Act 44 Prog. Statewide Sign.	0	0	0	0	0
Operating 1513	6,764,000	6,832,000	6,901,000	6,970,000	27,467,000
Other	0	0	0	0	0
Local Capital	46,375	43,972	46,145	39,151	175,643
Local Operating	0	390,410	409,931	430,427	1,230,768
Total	13,393,050	13,923,185	14,005,071	13,956,202	55,277,508

Notes:

1.) Only Total fields will calculate automatically.

2.) All other data fields must be manually inserted. No fields carry-over from the TIP-Transit Worksheet.

3.) The table should not need to be expanded because no other funding categories should be needed.

4.) Calculation of 5307 Funding: The total of 5307 and 5340 funds projected for allocation to the Lancaster Urban Area per fiscal year was based on PennDOT's Financial Guidance. There is a further sub-allocation of funds between SCTA/RRTA . and PennDOT. The funds allocated to Lancaster as reported in the Financial Guidance appeared to reflect this sub-allocation based on the 5307 funds Lancaster was allocated in previous fiscal years.

5) Calculation of Operating 1513 Funding; Based on PennDOT's Financial Guidance, Operating 1513 funds allocated to SCTA. Allocation of funds to Berks and Lancaster for TIP based on Act 44 formula: Berks--57.4% and Lancaster--42.6%.

6) Local match to State Operating Funds is deferred per Act 89 with the consolidation of BARTA and RRTA for CY 2019. Lancaster County will be required to provide local matching funds beginning in CY 2020 based on the CY 2014. There will be a 5% increase in each succeeding fiscal year.

7) 1514* -- SCTA is submitting the proposed use of $3,787,946. The proposed funds are programmed as Local fund pending the approval of the 1514 Improvement funds by PennDOT.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2019

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2019-01	102289	ADA Services	80% ADA Funding	5307	1513	375,700	93,925	0	469,625
2019-02	106740	Purchase Paratransit Vans	Replace Six (6) 2014 Paratransit Vans exceeding useful life	5307	1513	401,300	100,325	0	501,625
2019-03	102299	Vehicle Replacement Program	Replace Five (5) 2008 Fixed Route Diesel Bus w/electric hybrids	5307	1514*	2,980,000	720,974	24,026	3,725,000
2019-04	102299	Vehicle Replacement Program	Replace Two (2) 2008 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2019-05	102299	Vehicle Replacement Program	Replace One (1) 2008 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	385,000	93,146	3,104	481,250
2019-06	102286	Operating Assistance	Non-federal Funding		1513	0	9,021,075	0	9,021,075
2019-07	102303	Reading Non-Revenue Vehicles	exceeding useful life		1514*	0	43,501	1,499	45,000
2019-08	102301	Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	48,335	1,665	50,000
2019-09	102300	Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance Equipment		1514*	0	48,335	1,665	50,000
2019-10	106741	Replace Telephone System	Replace/upgrade telephone system to ensure reliability and improved customer service		1514*		72,502	2,498	75,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2019 SUBTOTAL						**5,042,000**	**10,459,861**	**41,714**	**15,543,575**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		State funds - 1514*					1,344,861	41,714	1,386,575
		Local Funds							0
		ALL FUNDS				5,042,000	10,459,861	41,714	15,543,575
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		Local Funds - Operating						0	0
		Local Funds - Capital						41,714	41,714
		ALL FUNDS				5,042,000	9,115,000	41,714	14,198,714

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,344,861. The $1,344,861 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

2) Purchase of Shared Ride Vehicles. Based on SCTA's Vehicle Replacement Program for Berks, SCTA is expected to request 5310/CTC funds administered by PennDOT to fund the replacement of one (1) 2014 vehicle.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2020

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2020-01	102289	ADA Services	80% ADA Funding	5307	1513	383,600	93,505	2,395	479,500
2020-02		Purchase Paratransit Vans	Replace Nine (9) 2014 Paratransit Vans exceeding useful life	5307	1513	552,400	134,651	3,449	690,500
2020-03	102299	Vehicle Replacement Program	Replace Seven (7) 2009 Fixed Route Diesel Bus w/electric hybrids	5307	1514*	2,500,000	604,844	20,156	3,125,000
2020-04	102302	Reading Facility Improvement Program	Upgrades to BTC	5307	1514*	400,000	96,775	3,225	500,000
2020-05	102299	Vehicle Replacement Program	Replace Two (2) 2009 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2020-06	102299	Vehicle Replacement Program	Replace One (1) 2009 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	395,000	95,565	3,185	493,750
2020-07	102286	Operating Assistance	Non-federal Funding		1513	0	9,112,495	388,015	9,500,510
2020-08	106742	Purchase Office Eqpt/Furniture	Upgrade & replace Office Eqpt/Furniture		1514*	0	24,168	832	25,000
2020-09	102301	Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	33,834	1,166	35,000
2020-10	102300	Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance Eqpt.		1514*	0	120,838	4,162	125,000
2020-11	102303	Reading Non-Revenue Vehicles	Replace One (1) 2010 Supervisory Vehicle exceeding useful life		1514*	0	33,834	1,166	35,000
		Fed Sect. 5307 Reserve				0			
		State App. 1513 Reserve Oper.					0		
FFY 2020 SUBTOTAL						**5,131,000**	**10,568,252**	**435,008**	**16,134,260**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				900,000			900,000
		Federal CMAQ				395,000			395,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,206,000	390,410	9,596,410
		State funds - 1514*					1,362,252	44,598	1,406,850
		Local Funds							0
		ALL FUNDS				5,131,000	10,568,252	435,008	16,134,260

ALLOCATED FUNDS						Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				395,000			395,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,206,000		9,206,000
		Local Funds - Operating						390,410	390,410
		Local Funds - Capital						44,598	44,598
		ALL FUNDS				5,131,000	9,206,000	435,008	14,772,008

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,362,252. The $1,362,252 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

2) Purchase of Shared Ride Vehicles. Based on SCTA's Vehicle Replacement Program for Berks, SCTA is expected to request 5310/CTC funds administered by PennDOT to fund the purchase of six (6) vehicles to replace 2015 vehicles.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2021

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				Fed	St.	Federal	State	Local	
2021-01		Preventive Maintenance	80% Maintenance Funding	5307	1513	260,000	62,900	2,100	325,000
2021-02		ADA Services	80% ADA Funding	5307	1513	383,600	92,707	3,193	479,500
2021-03		Vehicle Replacement Program	Replace Two (2) 2010 Fixed Route Diesel Bus w/electric hybrids	5307	1514*	1,000,000	240,938	9,062	1,250,000
2021-04		Vehicle Replacement Program	Replace Seven (7) 2016 Ford Shared Ride Vehicles	5307	1514*	460,000	111,290	3,710	575,000
2021-05		Upgrade AVL System	Upgrade AVL System exceeding its useful life	5307	1514*	800,000	193,550	6,450	1,000,000
2021-06		Reading Facility Improvement Program	Upgrades to Parking Garage	5307	1514*	932,400	225,580	7,520	1,165,500
2021-07		Vehicle Replacement Program	Replace Two (2) 2010 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2021-08		Vehicle Replacement Program	Replace One (1) 2010 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	395,000	95,565	3,185	493,750
2021-09		Operating Assistance	Non-federal Funding		1513	0	9,142,393	404,638	9,547,031
2021-10		Reading Non-Revenue Vehicles	Replace One (1) 2010 Supervisory Vehicle exceeding useful life		1514*	0	29,001	999	30,000
2021-11		Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	53,168	1,832	55,000
2021-12		Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance and Fare Collection Equipment		1514*	0	48,335	1,665	50,000
2021-13		Purchase Office Eqpt/Furniture	Upgrade & replace 2014 Office Eqpt Copiers exceeding useful life		1514*		38,668	1,332	40,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2021 SUBTOTAL						**5,131,000**	**10,551,838**	**452,943**	**16,135,781**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				395,000			395,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,298,000	409,931	9,707,931
		State funds - 1514*					1,253,838	43,012	1,296,850
		Local Funds							0
		ALL FUNDS				5,131,000	10,551,838	452,943	16,135,781
ALLOCATED FUNDS						Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				395,000			395,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,298,000		9,298,000
		Local Funds - Operating						409,931	409,931
		Local Funds - Capital						43,012	43,012
		ALL FUNDS				5,131,000	9,298,000	452,943	14,881,943

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,253,838. The $1,253,838 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2022

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2022-01		Preventive Maintenance	80% Maintenance Funding	5307	1513	400,000	96,775	3,225	500,000
2022-02		ADA Services	80% ADA Funding	5307	1513	383,600	92,707	3,193	479,500
2022-03		Vehicle Replacement Program	Replace Twelve (12) 2017 Shared Ride Vehicles	5307	1514*	800,000	193,550	6,450	1,000,000
2022-04		Reading Facility Improvement Program	Upgrades to Operations Center and replacement of 1997 Above Ground Tanks	5307	1514*	1,752,400	423,970	14,130	2,190,500
2022-05		TDP Update	Evaluate existing/potential service with Transit Development Plan Update	5307	1514*	200,000	48,387	1,613	250,000
2022-06		Bus Shelter Replacement Program	Upgrade/replace Twenty-five (25) Bus Shelters exceeding useful life	5307	1514*	200,000	48,388	1,612	250,000
2022-07		Vehicle Replacement Program	Replace Two (2) 2015 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2022-08		Vehicle Replacement Program	Replace One (1) 2015 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	395,000	95,565	3,185	493,750
2022-09		Operating Assistance	Non-federal Funding		1513	0	9,201,518	424,009	9,625,527
2022-10		Purchase Office Eqpt/Furniture	Upgrade & replace Office Eqpt/Furniture	5307	1514*	40,000	9,675	325	50,000
2022-11		Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment	5307	1514*	16,000	3,871	129	20,000
2022-12		Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance Eqpt.	5307	1514*	44,000	10,645	355	55,000
		Fed Sect. 5307 Reserve				0			
		State App. 1513 Reserve Oper.					0		
FFY 2022 SUBTOTAL						5,131,000	10,442,794	465,483	16,039,277

FUNDING SUMMARY

		FUNDS PROGRAMMED				Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				395,000			395,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,391,000	430,427	9,821,427
		State funds - 1514*					1,051,794	35,056	1,086,850
		Local Funds							0
		ALL FUNDS				5,131,000	10,442,794	465,483	16,039,277
		ALLOCATED FUNDS				Federal	State	Local	TOTAL
		Federal Section 5307				3,836,000			3,836,000
		Federal Section 5339				395,000			395,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,391,000		9,391,000
		Local Funds - Operating						430,427	430,427
		Local Funds - Capital						35,056	35,056
		ALL FUNDS				5,131,000	9,391,000	465,483	14,987,483

Notes:
1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,051,794. The $1,051,794 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP
FUNDING CATEGORY SUMMARY

Funding Source	FFY 2019	FFY 2020	FFY 2021	FFY 2022	Total
5307	3,757,000	3,836,000	3,836,000	3,836,000	15,265,000
5339	385,000	395,000	395,000	395,000	1,570,000
5310	0	0	0	0	0
CMAQ	900,000	900,000	900,000	900,000	3,600,000
CB	0	0	0	0	0
1514*	1,344,861	1,362,252	1,253,838	1,051,794	5,012,745
Act 44 Prog. Statewide Sign.	0	0	0	0	0
Operating 1513	9,115,000	9,206,000	9,298,000	9,391,000	37,010,000
Other	0	0	0	0	0
Local Capital	41,714	44,598	43,012	35,056	164,380
Local Operating	0	390,410	409,931	430,427	1,230,768
Total	15,543,575	16,134,260	16,135,781	16,039,277	63,852,893

Notes:

1.) Only Total fields will calculate automatically.

2.) All other data fields must be manually inserted. No fields carry-over from the TIP-Transit Worksheet.

3) Calculation of Operating 1513 Funding; Based on PennDOT's Financial Guidance, Operating 1513 funds allocated to SCTA. Allocation of funds to Berks and Lancaster for TIP based on Act 44 formula: Berks--57.4% and Lancaster--42.6%.

4) Local match to State Operating Funds is deferred per Act 89 with the consolidation of BARTA and RRTA for CY 2019. Berks County will be required to provide local matching funds beginning in CY 2020 based on the CY 2014. There will be a 5% increase in each succeeding fiscal year.

5) 1514* -- SCTA is submitting the proposed use of $4,756,712. The proposed funds are programmed as Local fund pending the approval of the 1514 Improvement funds by PennDOT.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2019

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2019-01	102289	ADA Services	80% ADA Funding	5307	1513	375,700	93,925	0	469,625
2019-02	106740	Purchase Paratransit Vans	Replace Six (6) 2014 Ford Challenger 15-passenger vehicles exceeding useful life with 2019 Ford Startrans 15-passenger vehicles	5307	1513	401,300	100,325	0	501,625
2019-03	102299	Vehicle Replacement Program	Replace Five (5) 2008 Fixed Route Diesel Bus w/electric hybrids	5307	1514*	2,980,000	720,974	24,026	3,725,000
2019-04	102299	Vehicle Replacement Program	Replace Two (2) 2008 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2019-05	102299	Vehicle Replacement Program	Replace One (1) 2008 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	385,000	93,146	3,104	481,250
2019-06	102286	Operating Assistance	Non-federal Funding		1513	0	9,021,075	0	9,021,075
2019-07	102303	Reading Non-Revenue Vehicles	exceeding useful life		1514*	0	43,501	1,499	45,000
2019-08	102301	Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	48,335	1,665	50,000
2019-09	102300	Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance Equipment		1514*	0	48,335	1,665	50,000
2019-10	106741	Replace Telephone System	Replace/upgrade telephone system to ensure reliability and improved customer service		1514*		72,502	2,498	75,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2019 SUBTOTAL						**5,042,000**	**10,459,861**	**41,714**	**15,543,575**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		State funds - 1514*					1,344,861	41,714	1,386,575
		Local Funds							0
		ALL FUNDS				5,042,000	10,459,861	41,714	15,543,575
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		Local Funds - Operating						0	0
		Local Funds - Capital						41,714	41,714
		ALL FUNDS				5,042,000	9,115,000	41,714	14,198,714

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,344,861. The $1,344,861 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

2) Purchase of Shared Ride Vehicles. Based on SCTA's Vehicle Replacement Program for Berks, SCTA is expected to request 5310/CTC funds administered by PennDOT to fund the replacement of three (3) 2014 Ford Challenger 15-passenger vehicles exceeding useful with 2019 Ford Startrans 15-passenger vehicles.

READING AREA TRANSPORTATION STUDY COORDINATING COMMITTEE (RATS)
BERKS AREA REGIONAL TRANSPORTATION AUTHORITY
FFY 2019-2022 TIP - TRANSIT ELEMENT - FFY 2019

TIP #	MPMS#	PROJECT NAME	DESCRIPTION	FUNDING		TIP COST ($)			TOTAL
				FED.	ST.	Federal	State	Local	
2019-01	102289	ADA Services	80% ADA Funding	5307	1513	375,700	93,925	0	469,625
2019-02	106740	Purchase Paratransit Vans	Replace Six (6) 2014 Ford Challenger 15-passenger vehicles exceeding useful life with 2019 Ford Startrans 15-passenger vehicles	5307	1513	401,300	100,325	0	501,625
2019-03	102299	Vehicle Replacement Program	Replace Five (5) 2008 Fixed Route Diesel Bus w/electric hybrids	5307	1514*	2,980,000	720,974	24,026	3,725,000
2019-04	102299	Vehicle Replacement Program	Replace Two (2) 2008 Fixed Route Diesel Bus w/electric hybrids	CMAQ	1514*	900,000	217,743	7,257	1,125,000
2019-05	102299	Vehicle Replacement Program	Replace One (1) 2008 Fixed Route Diesel Bus w/electric hybrid	5339	1514*	385,000	93,146	3,104	481,250
2019-06	102286	Operating Assistance	Non-federal Funding		1513	0	9,021,075	0	9,021,075
2019-07	102303	Reading Non-Revenue Vehicles	exceeding useful life		1514*	0	43,501	1,499	45,000
2019-08	102301	Reading Cap. Improve IT Equipment	Upgrade & replace hardware, software and communications/ security equipment		1514*	0	48,335	1,665	50,000
2019-09	102300	Reading Cap. Improve Shop Equipmment	Upgrade & Replace Maintenance Equipment		1514*	0	48,335	1,665	50,000
2019-10	106741	Replace Telephone System	Replace/upgrade telephone system to ensure reliability and improved customer service		1514*		72,502	2,498	75,000
		Fed Sect. 5307 Reserve		5307		0			
		State App. 1513 Reserve Oper.			1513		0		
FFY 2019 SUBTOTAL						**5,042,000**	**10,459,861**	**41,714**	**15,543,575**

FUNDING SUMMARY

FUNDS PROGRAMMED						Federal	State	Local	TOTAL
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB*							0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		State funds - 1514*					1,344,861	41,714	1,386,575
		Local Funds							0
		ALL FUNDS				5,042,000	10,459,861	41,714	15,543,575
ALLOCATED FUNDS						**Federal**	**State**	**Local**	**TOTAL**
		Federal Section 5307				3,757,000			3,757,000
		Federal Section 5339				385,000			385,000
		Federal CMAQ				900,000			900,000
		State Non-highway CB					0		0
		State funds - App. 1513 Oper.					9,115,000		9,115,000
		Local Funds - Operating						0	0
		Local Funds - Capital						41,714	41,714
		ALL FUNDS				5,042,000	9,115,000	41,714	14,198,714

Notes:

1) 1514* -- Act 89 Asset Improvement funds (Section 1514) will be allocated to SCTA at PennDOT's discretion. SCTA is submitting the proposed the use of $1,344,861. The $1,344,861 is based on the projected needs to support its Reading operation. SCTA is using the asterik (*) to acknowledge that the requested state funds will be programmed as Local funds pending the approval of the 1514 funds by PennDOT.

2) Purchase of Shared Ride Vehicles. Based on SCTA's Vehicle Replacement Program for Berks, SCTA is expected to request 5310/CTC funds administered by PennDOT to fund the replacement of three (3) 2014 Ford Challenger 15-passenger vehicles exceeding useful with 2019 Ford Startrans 15-passenger vehicles.

APPENDIX L

SCTA ORGANIZATIONAL CHART

APPENDIX M

SCTA TAM POLICY

Adopted June 20, 2018

RESOLUTION 08 - 2018

RESOLUTION ADOPTING TRANSIT ASSET MANAGEMENT PLAN

WHEREAS, the South Central Transit Authority strives to provide Safe, Courteous, on-Time, Reliable and Efficient public transit service for the residents of Berks and Lancaster Counties; and

WHEREAS, the South Central Transit Authority has invested in vehicles, facilities and equipment needed to provide public transit services; and

WHEREAS, the South Central Transit Authority is committed to cost effectively maintain its vehicles, facilities and equipment for the required useful life to ensure public transit services are provided on a daily basis in a reliable and safe manner; and

WHEREAS, the South Central Transit Authority will commit the necessary resources and funding to cost-effectively maintain and replace its capital assets in accordance with its Transit Asset Management Plan; and

WHEREAS, the South Central Transit Authority hereby adopts the developed Transit Asset Management Plan and the goal of reaching a State of Good Repair in accordance with the Federal Transit Administration's regulations contained in 49 CFR, Parts 625 and 630.

THEREFORE, the South Central Transit Authority hereby Resolves:

1. SCTA is committed to cost effectively maintaining its assets, including vehicles, facilities, and equipment for their intended useful life to ensure public transit services are provided in a Safe, Courteous, On-Time, Reliable and Efficient manner:
2. SCTA will commit the necessary available resources and funding to cost-effectively maintain and replace its assets in accordance with its Transit Asset Management Plan.
3. SCTA hereby adopts its Transit Asset Management Plan and the established goals of achieving a State of Good Repair.

Certification

I, James Schlegel, Secretary of the Board of the South Central Transit Authority, do hereby certify that the foregoing is a true and correct copy of a resolution adopted at a regular meeting of the Board held on the 20th day of June, 2018.

James Schlegel, Secretary
SCTA Board
June 20, 2018