



**Capital Area Transportation Authority**  
**PARATRANSIT DEMAND RESPONSE SERVICES**  
**(a) ADA Complementary Spec-Tran Services and**  
**(b) Supplemental Services for Rural Areas**

**Request for Proposal – Project # 2022-133**

**SCHEDULE OF ACTIVITIES**

RFP Released:	August 9, 2022
Written Questions Due to CATA:	August 18, 2022 @ 11:00 A.M. Eastern Time
Pre-Proposal Meeting: <b>Please refer to Section I-I, Pre-Proposal Meeting for additional details.</b>	August 23, 2022 @ 10:30 A.M. Eastern Time
CATA's Responses to Questions Released:	September 8, 2022
Number of Proposals and Due Date:	Submit three (3) proposal copies and one (1) electronic ("PDF") copy on CD/DVD or flash drive by 12:00 P.M. Eastern Time on October 3, 2022
Anticipated Award Date:	December 2022

**Released on: August 9, 2022**

## TABLE OF CONTENTS

SCHEDULE OF ACTIVITIES.....	1
TABLE OF CONTENTS .....	2
SECTION I: PROCUREMENT PROCESS.....	3
I-A Issuing Office .....	3
I-B Project Management .....	3
I-C Project Oversight .....	5
I-D Incurring Costs.....	3
I-E Contract Term.....	3
I-F Contract Extension .....	4
I-G Type of Contract .....	4
I-H Questions/Changes to the RFP .....	4
I-I Pre-Proposal Meeting.....	4
I-J Proposals .....	4
I-K Proposal Requirements.....	5
I-L Acceptance of Proposal Content .....	6
I-M Economy of Presentation .....	6
I-N Primary Contractor Responsibilities.....	6
I-O Other Duties Assigned by CATA .....	7
I-P Selection Criteria.....	7
I-Q Oral Presentation.....	8
I-R Independent Price Determination .....	8
I-S Pricing & Payment .....	9
SECTION II: STATEMENT OF WORK.....	10
II-A Background.....	10
II-B Objectives.....	10
II-C Scope of Work .....	11
II-D Contract Management and Responsibilities .....	16
SECTION III: COMPLIANCE REQUIREMENTS .....	30
III-A FTA and MDOT Required Clauses.....	30
III-B Disadvantaged Business Enterprises .....	30
III-C Compliance with Laws .....	30
III-D Ownership .....	31
III-E News Releases .....	31
III-F Audit and Inspection of Records.....	31
III-G Complaints or Protests .....	31
III-H Contractual Terms and Conditions .....	31
APPENDICES.....	32
ATTACHMENTS.....	46

# Capital Area Transportation Authority

## PARATRANSIT DEMAND RESPONSE SERVICES

### (a) ADA Complementary Spec-Tran Services and (b) Supplemental Services for Rural Areas

## Request for Proposal - Project # 2022-133

### SECTION I: PROCUREMENT PROCESS

#### I-A Issuing Office

This Request for Proposal ("RFP") is issued by Capital Area Transportation Authority ("CATA"), 4615 Tranter Street, Lansing MI 48910.

**All communications regarding this project during the procurement process must be emailed to CATA's Purchasing & Contracts Department:**

Ms. Nicole Wilson  
Purchasing and Contracts Manager  
Capital Area Transportation Authority  
4615 Tranter Street  
Lansing, MI 48910  
E-mail: [nwilson@cata.org](mailto:nwilson@cata.org)

#### I-B Project Management

The person designated to perform as CATA's Project Manager **AFTER AWARD** of the Project is named below. **This person is not to be contacted by Respondents prior to award.** The only CATA contact during the RFP process is CATA's **Purchasing, and Contracts Employee named above.**

Mr. Craig Frazier  
Operations Manager - Paratransit  
Capital Area Transportation Authority  
4615 Tranter Street  
Lansing, MI 48910

#### I-C Project Oversight

The oversight of this CATA Project is the responsibility of the CATA Project Manager, or designee, named in Project Management Section I-B above.

The Contractor will be required to work with CATA staff and service agencies as directed by CATA throughout the duration of the Contract.

#### I-D Incurring Costs

CATA is not liable for any cost incurred by any party prior to signing of a contract with that party and then only upon written authorization from CATA to proceed with the project.

#### I-E Contract Term

The term of the proposed contract will commence on April 1, 2023 and continue for a period of three (3) years, through March 31, 2026. CATA shall thereafter have two (2), one-year options to extend the contract term.

## I-F Contract Extension

CATA reserves the right to extend the term of any contract resulting from this RFP as outlined above. Any extension will be in writing and must be mutually agreed to by both CATA and the Primary Contractor.

## I-G Type of Contract

CATA reserves the right to award without scheduling a pre-proposal meeting or providing a short-list of Contractors or hold short-list interviews or presentations. The award of this solicitation will result in a Fixed Rate Contract.

## I-H Questions/Explanations/Changes to the RFP

It is the desire of CATA to provide the same information to all interested parties to ensure fairness and impartiality in the procurement process. To that end, CATA will not respond to telephone inquiries or personal visits. Visitation by respondents or their representatives may be made to CATA only at the pre-proposal meeting, if held. All questions or request for further explanation or interpretation are to be submitted in writing. Submit written questions or inquiries (via U.S. postal service or e-mail) to the CATA Purchasing & Contracts Department at the address indicated in Section I-A above no later than the date and time indicated on the Schedule of Activities above. Any changes made to this RFP, in response to the questions or concerns raised in any scheduled pre-proposal meeting or through correspondence received by CATA prior to the pre-proposal meeting, will be put in writing to all firms attending any scheduled pre-proposal meeting or otherwise indicating an interest in this project and posted on CATA's website by the date stated on the above Schedule of Activities page. No changes will be made in the RFP after such changes/answers are distributed.

## I-I Pre-Proposal Meeting

See *Schedule of Activities* page above for date and time of any Pre-Proposal Meeting scheduled for this RFP. The purpose of this meeting is to discuss with prospective contractors the work to be performed and to answer questions about this RFP. The pre-proposal meeting is informational only; vendor attendance is not mandatory. However, interested vendors are strongly encouraged to attend. For those that are not able to attend the pre-proposal meeting; a conference line will be available to call in. This option will be available for any potential respondents who are unable to attend the meeting in-person.

The pre-proposal meeting will be held at CATA's Administration Building at 4615 Tranter Street, Lansing, MI. Visitors will not be allowed to park on the street due to road construction. All visitors should park in the employee parking lot (the gates will be open) located at the north end of the building.

10:30 A.M. - 11:00 A.M. Vendors will be allowed to tour CATA vehicles.

11:00 A.M. - CATA will start the meeting at this time in the Board Room. For those that cannot attend, please use the call-in information below:

- Dial-in Number: (517) 999-6011
- Access Code: 924705

## I-J Proposals

To be considered for award, each respondent must submit a complete response to the RFP, using the designated format (if any) and accepting the requirements of Sections II and III below. Proposals are to be submitted only to CATA. No other distributions of proposals are to be made. An official authorized to bind the respondent to the proposal must sign the proposal in ink. Submission of a proposal shall bind the respondent to all provisions of the proposal, including costs, for a period extending not less than one hundred eighty (180) days following the Proposal Due Date, which is stated in the Schedule of Activities above. Submit the number of proposal copies per the directions indicated on the *Schedule of Activities* page above. Proposals, including pricing schedules, must be submitted to CATA by the time and date set as the Proposal Due Date indicated on the *Schedule of Activities* page above. The respondent is solely responsible for the timely delivery of the proposal to CATA. Except as provided below, late proposals will not be considered.

Late proposals which are received after the Proposal Due Date may be considered, if the respondent establishes to CATA's satisfaction within five (5) days of the Proposal Due Date that the delay was due to an independent event outside the control of respondent, such as acts of God or the public enemy, war, national emergency, labor strikes, the failure of the U. S. Postal Service to deliver first-class, registered, or certified mail within five (5) days, or the failure of a national courier service recognized by CATA to deliver as guaranteed or specified. CATA will require documentation to excuse late delivery, including, but not limited to, signed statements or affidavits, postmarks, original postal receipts, courier receipts, and shipment tracking logs in a form satisfactory to CATA. All proposals submitted in response to this RFP will become the property of CATA and will not be returned to the respondent. CATA does not agree that any information submitted by a proposing firm/organization will be kept confidential (regardless of whether a vendor marks it as such). All

potential proposing firms/organizations are hereby put on notice that CATA may be required to release proposal information after the contract award pursuant to the Michigan Freedom of Information Act or other applicable law.

## I-K Proposal Requirements

Proposing firms/organizations shall include a detailed proposal. Emphasis should be on completeness and clarity of content. Proposing firms/organizations are expected to examine the specifications, standard provisions, and all instructions and requirements of this RFP and respond accordingly. The apparent silence of any specification or detail or the apparent omission of any detail concerning any point shall be regarded as meaning only that the best commercial practice is to prevail. CATA reserves the right not to consider any proposals deemed non-responsive to the requests in this RFP.

Proposals shall be submitted in binder format with tabs labeled. Respondent technical proposals will contain, at a minimum, the information indicated below:

- Respondent must provide a cover letter which identifies the proposing firm/organization, mailing address, contact person, email address and telephone number. The cover letter must acknowledge the receipt of all addenda issued to this RFP and be signed by the individual who is authorized to negotiate and execute a contract on behalf of the proposing firm/organization.
- Respondent must provide detailed response to each item in the Scope of Work demonstrating Respondents understanding and ability to satisfactorily perform each item.
- Statement describing the Respondent's understanding of CATA's stated problem and project objectives.
- Qualifications of the Primary Contractor and each sub-contractor which include the firm's length of time in business and the firm's certificate of insurance.
- A list of any work that is to be sub-contracted and a description of the qualifications of the Prime Contractor and each Sub-Contractor on the team.
- Identification of and qualifications for the key individuals which would be assigned to perform this work. Please specify how often each individual is anticipated to meet with CATA staff, perform on-site work/visits, and whether such individual can be available by phone as needed.
- Details regarding Contractor's current workforce (operators, maintenance, etc.) including specifically how many employees Contractor can dedicate to performing work under the proposed contract and the experience, job classification, and pay rate for these employees (demonstrating competitive wages and fringe benefits).
- Detailed description of personnel qualifications, selection, and retention program.
- Contractor's standards for its workforce regarding professionalism and work performance.
- An organizational chart of the Contractor and all Sub-Contractors.
- Names, addresses, and tasks of each DBE firm to be involved in the project.
- List of at least three (3) references of similar work, including specific contact names, addresses, telephone numbers, fax numbers and e-mailaddresses (*See Attachment C*).
- References regarding ability to complete runs assigned and/or statistics regarding on time performance.
- Statement of Agreement with CATA Standard Terms & Conditions and the RFP.
- Statement of compliance and agreement to continue compliance with Federal and State laws and regulations, including regulations of the Federal Transit Administration and the Michigan Department of Transportation ("MDOT").
- A description of the Contractor's Quality Assurance Program.
- A detailed description of training and refresher training program.
- A detailed description of the Contractor's Transition Plan, if applicable, describing how Contractor will cooperate with CATA for transition planning and/or transitioning to Contractor's services.

- A detailed description of how the Contractor will meet CATA's vehicle maintenance standards.
- A detailed description of how Contractor trains employees on how to handle transport medically fragile clients.
- Price proposals and their cost bases based on instructions contained in this RFP. Proposed costs must be submitted on the enclosed Pricing Form (See Attachment D). CATA may consider a proposal to be non-responsive if a set pricing structure is not proposed.
- A detailed description of how Contractor plans to timely respond to CATA's instructions and/or requests.
- A detailed description of Contractor's process and timeline for Contractor to respond to and close run assignments and any support (statistics, documents, etc) Contractor has which show a history of on time adherence to this process.
- A detailed description of any programs, policies, or procedures Contractor has in place to reduce onboard times.
- A detailed description of Contractor's process for contacting clients who have concerns and how client concerns will be handled with any statistics Contractor possesses regarding client concerns/complaints and resolution of the same.
- The name and telephone number of person(s) in the Contractor's organization authorized to negotiate/expedite the proposed contract with CATA.
- Executed forms, as attached.
- Information requested elsewhere in this RFP.
- Additional Information and Comment – include any other information that is believed to be pertinent, but not specifically asked for elsewhere.

## I-L Acceptance of Proposal Content

The contents of this RFP, its attachments, and the proposal will become contractual obligations if a contract ensues. Failure of the successful respondent to accept these obligations may result in elimination of the respondent from the selection process. CATA further reserves the right to interview the key personnel assigned by the successful respondent to this project and to recommend reassignment of personnel deemed unsatisfactory by CATA.

## I-M Economy of Presentation

Each proposal should be prepared simply and economically, providing a straightforward, concise description of the respondent's ability to meet the requirements and objectives of this RFP. Emphasis should be on completeness and clarity of content.

## I-N Primary Contractor Responsibilities

The selected contractor(s) (Primary Contractor) will be required to assume responsibility for all services offered in its proposal whether or not the contractor performs them. Further, CATA will consider the selected respondent to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.

If any part of the work is to be subcontracted: All subcontracted work to which costs will be passed through CATA or outside services must comply with CATA's procurement procedures. All bidding summary sheets must be attached to subcontractor receipts/invoices and sent to CATA. Any sole-source awards must be documented, and this documentation must be attached to the invoice submitted to CATA.

The primary contractor is responsible for adherence by the subcontractors to all provisions of the contract. CATA must review and approve, in writing, all subcontractors. All subcontractors must be included in the initial proposal with descriptions of the firm's qualifications and the qualifications of the key individuals assigned to this project. The primary contractor is responsible for any subcontractor's project quality and performance in meeting deadlines.

## I-O Other Duties Assigned by CATA

Because of the nature of this project, CATA is unable to determine all possible work components and tasks to be completed. The Contractor may be asked to provide additional services not outlined in this RFP. When additional duties beyond those outlined in this RFP and in the Contractor's, proposal are identified, CATA and the contractor will discuss the contractor's ability to complete this work. If CATA determines the contractor should conduct the additional work, the contractor will provide a Request for a Task Order describing the work to be done and all associated costs. A written task order will then be issued by CATA.

## I-P Selection Criteria

Responses to this RFP will be evaluated based upon the following factors as presented in the respondent's proposal. The criteria used to evaluate the proposals are provided below and are listed in order of importance. CATA will evaluate responses for the contractor whose proposal is most advantageous to CATA based upon all the factors listed below and also including, but not limited to, responsiveness during the RFP process, demonstrated technical ability and expertise, financial stability, reference recommendations, and presentations (if applicable). Any one factor would suffice to determine if a potential contractor would be most advantageous to CATA. Price is relatively less important than the other criteria as a whole. Therefore, the contract may be awarded to a firm which is not necessarily the low bidder.

### 1. Project understanding and approach

- The proposal should demonstrate an understanding of the work to be completed.
- The proposal must not add additional terms or conditions which would materially conflict with CATA's requirements stated in the RFP.
- CATA will evaluate contractor's ability, capacity, and skill to perform the services required.
- The proposal must provide detailed response to each item in the Scope of Work demonstrating Respondents understanding and ability to satisfactorily perform each item.
- The proposal should demonstrate the technical abilities of the Contractor.
- The proposal must describe how the Contractor will perform the scope of work, contract management and responsibilities. This also addresses quality of information submitted in the proposal, including completeness, relevance, conciseness, and organization of materials presented. The proposal should describe the quality control measures and the system for ensuring quality standards.
- The proposal should describe the process for ensuring customer satisfaction, measures used, training of staff, staff available, handling of complaints, and follow-through on complaints.
- The proposal should describe the method of approach to the scope of work, contract management, and responsibilities. This also addresses quality of information submitted in the proposal, including completeness, relevance, conciseness, and organization of materials presented.
- The proposal should describe the understanding of the problem and objectives. The proposal must demonstrate Contractor's understanding of the project.
- The proposal should describe the cost efficiencies. This addresses how the proposal would improve or otherwise affect cost efficiencies at CATA and specifically with reference to the scope of work, contract management, and responsibilities.
- The proposal should not propose terms or conditions which are contrary to those outlined in this RFP.

### 2. Qualifications of the Firm/Organization and Staff

- The proposal must include the contractor's general qualifications.
- The proposal must include the contractor's length of time in business.
- The proposal must include the contractor's certificate of insurance.
- The proposal must explain any work that is to be sub-contracted including a clear description of how each subcontractor would contribute to the work.
- The proposal should describe the capability and qualifications of the prime firm and all subcontractors. This addresses distribution of staff time to the project and the Contractor's past record of performance on similar assignments (such as control of costs, quality of work, and ability to meet schedules). The Contractor will also be evaluated on its past experience in managing subcontractor relationships.
- The proposal should describe the capability and qualifications of the key individuals. This addresses key individuals from the primary Contractor and any named subcontractors, including resumes, previous work on similar projects, technical experience, education, and training.
- The proposal should include details regarding Contractor's current workforce (operators, maintenance, etc.) including specifically how many employees Contractor can dedicate to performing work under the proposed contract and the experience, job classification, and pay rate for these employees (demonstrating competitive wages and fringe benefits).
- The proposal should include a detailed description of all personnel qualifications and any selection and/or retention program, and training provided to the workforce.

- The proposal should describe the contractor's standards for its workforce.
- Contractor must demonstrate an ability to timely perform quality work.
- CATA will consider the character, integrity, reputation, judgment, experience, and efficiency of the contractor.

### 3. Price/Cost

- The pricing form shall include all prices for services provided.
- The pricing form is complete accurately.

### 4. Experience of the Firm with Similar Projects

- The proposal lists three (3) company references that illustrate the Contractor's past record of performance on similar projects.
- The references support the contractor's ability to perform the work.
- The proposal demonstrates relevant experience and expertise as stated in the scope of work.
- CATA will evaluate the quality of performance of any previous services or contracts of the proposed Contractor.
- CATA will evaluate Contractor's compliance with existing laws.

### 5. Completeness and Responsiveness of Proposal to RFP

- Proposer has met all submittal requirements.
- The proposal is thorough and easily understandable.

Overall evaluation of the proposal and the vendor, including with respect to vendor, satisfactory references, legal status and compliance, experience with other projects and procurements, and other matters of concern.

CATA will constitute an ad hoc committee to evaluate all proposals. The firm(s) determined to be the most highly qualified based on the submitted proposal and any oral presentation may be asked to enter final negotiations. If the most qualified firm is unable to consummate agreement with CATA, then the next most qualified firm will be considered for award, and so on.

CATA will evaluate proposal criteria on a best value basis which considers both price and the above technical factors to determine the offer that is most advantageous and presents CATA with the best overall value (not necessarily just the lowest price).

The cost basis for the proposal will be used to evaluate the price proposal. Price will be evaluated in comparison to the above technical factors in the group.

Respondents may be required to update their proposals in writing if clarification or additional information is needed. Inquiries may be made of Respondents concerning their proposals. At any time during this process, CATA reserves the right to re-bid, award, or cancel the project, as CATA determines.

## I-Q Oral Presentation

Not Applicable.

## I-R Independent Price Determination

By submission of a proposal, the respondent certifies or, in the case of a joint proposal, each party thereto certifies as to its own organization, in connection with this proposal:

- The prices in the proposal have been determined independently and without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such prices with any other respondent or with any competitor.
- Unless otherwise required by law, the prices that have been quoted in the proposal have not been knowingly disclosed by the respondent prior to award directly or indirectly to any other respondent or to any competitor.
- No attempt has been made or will be made by the respondent to induce any other persons or firm to submit or not submit a proposal for the purpose of restricting competition.

Each person signing the proposal certifies that she/he:

- Is the person in the respondent's organization responsible within that organization for the decision as to the prices being offered in the proposal and has not participated (and will not participate) in any action contrary to the requirements indicated in the bullets above.

or

- Is not the person within the respondent's organization responsible for the decisions as to the pricing being offered in the proposal but has been authorized, in writing, to act as an agent for the persons responsible for such a decision and certifying that such persons have not participated (and will not participate) in any action contrary to the requirements indicated in the bullets above.

## I-S Pricing and Payment

The Contractor shall submit a proper invoice to the address shown below. CATA reserves the right to return an invoice which is incomplete.

Invoices are due by the tenth (10<sup>th</sup>) business day of the following month. All undisputed invoices will be paid within 30 days from receipt of a complete and correct invoice with monthly report. If any billing discrepancies are noted, CATA will withhold all or part of the payment and allow Contractor fifteen (15) days to submit corrected invoices and reports. CATA may also reduce any invoices by any liquidated damages and/or performance penalties assessed.

CATA

Attn: Accounts Payable

4615 Tranter Street

Lansing, MI 48910

Email: [payables@cata.org](mailto:payables@cata.org) (All invoices will be emailed to [payables@cata.org](mailto:payables@cata.org), with a copy to the Project Manager.)

The invoice must contain the following information:

1. Invoice number
2. Time period covered by Invoice
3. Description of work completed
4. Contact person and phone number
5. Payment remit address

All invoices must also be accompanied by monthly reports with the following information:

1. Validated deadhead and revenue miles by day;
2. Validated deadhead and revenue hours by day;
3. Number of passengers transported by the type of Service; and
4. Daily cash fares retained by Contractor.

The Project Leader or designee will provide individual project budgets before any work is authorized to begin. The Contractor must keep project costs within that amount unless the Project Leader agrees to a change before costs are incurred. The vendor must list specific CATA-budgeted projects and activities for each item/service charged to CATA on invoices.

Agency invoices and subcontractor receipts/invoices should clearly show that no mark-up costs, commissions or sales taxes were incurred. CATA will not pay mark-up or tax on any outside services which are obtained by the Contractor on CATA's behalf. CATA will pay for outside services directly to avoid any mark-up or sales tax.

## SECTION II: STATEMENT OF WORK

### II-A Background

The Capital Area Transportation Authority (CATA) is a public transit authority that operates public transportation bus and paratransit services across metropolitan Lansing, Michigan. CATA's mission-critical employees, such as operators, are considered first responders because transit is designated as an essential service in times of crisis. CATA's service area includes all 559 square miles of Ingham County and extends into portions of Eaton County and Clinton County. CATA also provides services on the campus of Michigan State University. Founded in 1972, CATA has grown to provide service on 33 routes system-wide to nearly 11.1 million riders during fiscal year 2019.

As the region's public transportation provider, CATA operates four facilities in its service area. Headquartered in south Lansing, the Administrative Offices are home to the executive office; all administrative departments; and the bus storage facility, which houses CATA's directly operated fleet, maintenance, and operations. The CATA Transportation Center (CTC), located in downtown Lansing, is the central boarding hub and transfer point for 16 CATA routes, Indian Trails intercity bus services, the customer information center, and on-site security.

On MSU's campus, the MSU-CATA Transportation Center (MSU-CTC) is the main boarding center for CATA routes serving MSU and is adjacent to one of several campus parking ramps. As the region's primary multimodal transportation facility, the state-of-the-art Capital Area Multimodal Gateway, Operated by CATA, is the authority's newest facility. The Gateway offers seamless access to rail, intercity, regional and national bus lines, and local taxi services. The Gateway is served by three CATA fixed routes.

CATA currently utilizes one third-party contractor under a multi-year agreement to operate a portion of its paratransit operations.

Contracted Supplemental Service is provided for all customers (with and without disabilities) outside of the urban area. Supplemental Services include CATA Rural Service, Mason and Williamston/Webberville Connector, Mason Redi-Ride, Michigan State University Lot Link and Night Owl and The Shopping Bus. Service descriptions can be found at [CATA.org](http://CATA.org).

### II-B Objectives

The specific objective for this project are as follows:

The specific objective for this Project is to secure the services of one or multiple Contractor(s) to deliver one or both ADA Spec-Tran and Supplemental Paratransit Services that provide:

- Prompt courteous service to CATA customers, including those who are ADA certified.
- Hire and maintain an active work force large enough to cover all runs.
- Provide office and street management and supervision.
- Create and schedule runs efficiently.
- Maintain and improve CATA efficiencies.
- Dispatch all activities related to trips booked on Contractor's runs.
- Hire and maintain an active, trained, knowledgeable, and experienced maintenance workforce.
- Maintain and perform routine service on all vehicles.
- Maintain accurate fare counts, passenger counts, and all other required reporting.
- Comply with all state and federal requirements.

## II-C Scope of Work

### (a) Changes to Hours, Days, and Areas of Service and Changes to Scope of Work

The Scope of Work herein is stated based upon currently known needs of CATA. Any component of any service under the Scope of Work may be altered, increased, or decreased based upon ridership, demand and or funding within CATA's sole discretion at any time during the contract. The Contractor must have the capability to extend services to encompass additional service areas, additional weekday, weekend including Sundays, and holiday hours in the future. The Contractor must also be willing to reduce service without expectation of adjusting the price rates, upon CATA's request. CATA further reserves the right to move certain services off the Contractor Scope of Work and instead perform these services itself, within CATA's sole discretion, at any time during the contract.

### (b) ADA Complementary Spec-Tran Services

**CATA's ADA Complementary Spec-Tran Service** is advance reservation curb-to-curb service for persons with disabilities who are unable to use fixed route service due to their disability. Spec-Tran service is highly specialized and is provided to individuals who have been certified as eligible pursuant to Americans with Disabilities Act ("ADA") Regulations.

Operator awareness and sensitivity to customer needs is critical to these services. Vehicle operators must assist customers to ensure safe and comfortable transportation. Drivers are required to assist customers to and from vehicle, including loading and unloading packages, opening, and closing vehicle doors, securing seatbelts, and securing wheelchairs and other mobility devices inside the vehicle when assistance is needed or requested. At times, a higher level of assistance may be required by the operator in order to facilitate safe and efficient transportation due to special needs of the customer or logistical problems at a location.

Operators must also make a reasonable effort to notify customers of their arrival such as honking the horn, exiting the vehicle to announce arrivals, and even entering public locations if doing so does not cause a safety risk to others.

Operators must drive safely and follow the most efficient routing possible in consideration of distance, time parameters, and road conditions.

Operators must be trained to give accurate information regarding Spec-Tran service and other CATA services. Operators represent CATA and must reflect CATA's "best in class" image.

In the event that CATA decides to assign non-ambulatory clients to the Contractor the Contractor must have the capability to assume the service.

#### Hours of Operation

Services to be provided under the terms of this contract as follows: Monday – Friday from 5:40 a.m. to 11:35 p.m. Saturday hours of service are from 8:15 a.m. to 11:35 p.m. Sunday hours of service are from 8:15 a.m. to 7:10 p.m. Spec-Tran Service is not provided on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Easter, and Christmas.

CATA has three routes that operate on Thursday, Friday, and Saturday, later than the standard service hours above. During these extended hours, CATA's directly operated service provides service on these routes.

#### Area of Service

The Spec-Tran Service area is the Cities of Lansing and East Lansing and the Townships of Lansing, Delhi, and Meridian, plus areas within three-quarters of a mile beyond CATA fixed route service along the boundaries of Ingham and Eaton Counties and Ingham and Clinton Counties. Spec-Tran service boundaries are subject to change.

#### Vehicles

Contracted Spec-Tran service is provided by a CATA fleet of fifty-two (52) low-floor gas minivans with an average age of four (4) years and average life mileage of 153,831.

## Types of Customers

For the purposes of counting ridership, customers are categorized by the following types:

- ADA certified customers who have been certified as eligible for ADA Complementary Paratransit service,
- Non-certified paying guests of customers such as guests of the ADA certified customers,
- Non-paying customers such as personal care assistants ("PCAs") of certified customers or children under 42 inches tall, CATA employees who are ADA certified and CATA employees who ride for the purpose of service evaluation.

Trips for personal assistants and guests must be booked in advance. Assistants and guests must be picked up and dropped off at the same locations as the certified customer. ADA regulations require that ADA certified customers be allowed to take one guest. Additional guests may be allowed if capacity permits.

## Eligible Billing Costs

Contractor may bill CATA only for service hours for trips provided for customers who have been certified as eligible for ADA Complementary Paratransit service (billable customers). Contractor will not bill or provide separate trips for personal assistants or guests (non-billable customers).

## Historical Ridership, Hours, and Mileage Information

The information listed below is for ADA Complementary Spec-Tran Services, Supplemental Services for Rural Areas, MSU Lot Link, MSU Night Owl and The Shopping Bus for October 1, 2017, through September 30, 2018, October 1, 2018, through September 30, 2019, and October 1, 2019, through September 30, 2020, and is provided as background for cost analysis and price quotes. FY 18 and FY 19 represent traditional ridership data while FY 20 data was greatly impacted by the COVID-19 pandemic.

<b>ADA Complementary Spec-Tran</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
Hours – Revenue	122,524	127,710	100,610
Hours – Total	137,187	145,233	115,900
Miles – Revenue	1,548,034	1,863,589	1,217,661
Miles – Total	1,696,403	2,041,757	1,369,103
<b>Supplemental Services for Rural Areas</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
Hours – Revenue	22,448	22,723	17,204
Hours – Total	27,628	29,249	24,316
Miles – Revenue	348,326	429,106	297,065
Miles – Total	487,228	619,590	452,352
<b>MSU Lot Link</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
Hours – Revenue	2,252	2,043	1,113
Hours – Total	2,887	2,975	2,027
Miles – Revenue	23,275	17,839	8,809
Miles – Total	31,012	25,583	13,547
<b>MSU Night Owl</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
Hours – Revenue	2,429	2,143	1,174
Hours – Total	3,012	3,047	2,154
Miles – Revenue	17,272	9,979	5,617
Miles – Total	23,517	16,381	9,463
<b>The Shopping Bus</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
Hours – Revenue	762	1,507	1,226
Hours – Total	948	1,884	1,569
Miles – Revenue	5,811	11,667	9,078
Miles – Total	6,904	13,807	10,933

<b>Passengers</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
CATA Rural Service	33,824	30,103	15,804
Mason Redi-Ride	12,610	10,316	5,495
Mason Connector	13,375	12,471	4,960
Williamston Connector	18,220	17,881	2,748
MSU Lot Link	11,404	8,243	4,079
MSU Night Owl	8,247	3,877	1,973
The Shopping Bus	4,325	8,332	6,206
Spec-Tran Purchased	267,878	261,466	171,138

CATA has experienced a large increase in demand for medically fragile transportation in the past year. Proposals should address how those trips will be handled.

### **Dispatching and Scheduling**

CATA will be responsible for managing the run templates, subscriptions, and trip batching/scheduling. It will be the Contractor's responsibility to efficiently manage runs and trips using the Trapeze PASS program that will be provided by CATA. CATA will assist with Trapeze PASS program training during the transition period.

Contractor is responsible for dispatching contracted Spec-Tran service to fulfill the schedule provided by CATA and ensuring all Spec-Tran clients are fulfilled. This work must be done in accordance with CATA protocols.

Any changes to trips including cancellations and additional trips that occur on the day of operation must be honored by the Contractor if the change has been authorized by CATA. Contractor may not cancel or modify trips without CATA's approval. No runs can be closed without CATA permission.

CATA reserves the right to perform all or part of dispatching requirements, if it is determined that service quality or efficiency would improve as a result of the change. CATA Reserves the right to increase or decrease the run structure based on seasonal needs and other service considerations.

## **(c) Supplemental Services for Rural Areas**

CATA Supplemental Service provides a variety of demand response and flex-route transportation services as scheduled by CATA, primarily in Ingham County. Services include curb-to-curb service for the general population (Mason Redi-Ride and CATA Rural Service), flexible route connector service from Lansing to Mason (Mason Connector) and Okemos to Webberville (Williamston / Webberville Connector). Operator awareness and sensitivity to customer needs is critical to these services. Operators must be physically capable of assisting customers to and from the vehicle if needed, properly securing manual and motorized wheelchairs and other mobility devices and assisting in loading and unloading shopping bags.

Although CATA's service area is Ingham, Clinton, and Eaton Counties, the primary areas served by CATA Supplemental Services are: rural Ingham County with some overlap into the urban service areas of the Cities of Lansing and East Lansing and the Townships of Lansing, Meridian, and Delhi. The Contractor may be required to interface with transit systems in neighboring counties and to provide service added by CATA in Eaton and Clinton Counties.

### **CATA Rural Service**

CATA Rural Service provides advance reservation trips between the rural communities of Ingham County and to and from the rural areas and transfer locations in the urban areas of Ingham County. The hours of service are between 7 a.m. and 6 p.m. on Monday through Friday. In order to be assured of a ride, customers must request trips by 5 p.m. the business day before the ride is needed. Rides are scheduled and dispatched by CATA. CATA will consider proposals for this service to be dispatched by the Contractor.

### **Mason and Williamston/Webberville Connector Service**

The Connectors are scheduled shuttles between Mason and South Lansing and between Webberville and Okemos. The routing of the Connectors is determined by CATA. The Williamston/Webberville Connector has eight scheduled departures from Webberville to the Meridian Mall and seven departures from the Meridian Mall to Webberville on Monday through Friday between the hours of 7:15 a.m. and 5:40 p.m. The Saturday Connector makes nine departures from the Meridian Mall and eight departures from Williamston. Saturday hours for the Williamston/Webberville Connector are 7:20 a.m. to 4:35 p.m. The Mason Connector has six scheduled departures from Mason to South Lansing and six departures from South Lansing to Mason on Monday through Friday. The

Saturday Connector makes five departures from Mason and South Lansing. Service hours for the Mason Connector are 7:15 a.m. to 6:00 p.m. on weekdays and from 8:30 to 4:00 on Saturdays. Customers whose trips originate and end at the end of the line of either Connector Service are not required to make advance reservations. When arranged in advance, customers may be picked up or dropped off at a location that is within one mile of the designated route on Mason Connector. Customers on the Williamston / Webberville connector may be picked up or dropped off at a location within the Williamston city limits when the ride is requested in advance. Advance requests are not required if there is no deviation as there are numerous fixed stops along both Connector routes.

### **Mason Redi-Ride Service**

The Mason Redi-Ride Service provides demand-response rides within defined geographic areas. The Mason Redi-Ride service boundaries are Harper Road to the north, Ives Road to the East, Tomlinson Road to the south, and College Road to the west. Rides may be requested within 30 minutes of the requested pick up time. Rides are scheduled and dispatched by CATA. CATA may change the minimum time to request rides as warranted by demand.

### **MSU Lot Link**

The Lot Link provides evening/early morning demand-response campus service Monday through Friday and all day, evening and early morning service Saturday and Sunday during "Spartan (MSU) Service". Lot Link also operates earlier service on each Sunday at the conclusion of a break and on some holidays such as Easter. Passengers may travel between any two lots on MSU campus. Rides are restricted to campus lots #80, #83, #89, #91 and Spartan Village only.

### **MSU Night Owl**

The Night Owl provides late night/early morning demand-response campus Monday thru Friday 2:00 AM until 7:00 AM. Saturday and Sunday 2:00 AM until 9:00 AM. The Night Owl operates during "Spartan (MSU) Service" at times when CATA fixed-route bus services are not running. Passengers may travel between any two locations on MSU campus.

### **The Shopping Bus**

CATA provides regularly scheduled transportation from senior housing complexes to major shopping locations from 8:30 a.m. to 4:30 p.m. Monday through Friday.

### **Vehicles and Runs**

CATA Rural Service, Mason Connector, Williamston / Webberville Connector and Mason Redi-Ride currently operate with a minimum of eighteen (18) small lift-equipped buses with an average age of seven (7) years and average life mileage of 153,831. The Shopping Bus operates with one (1) 30 foot, specifically designed low-floor heavy duty transit bus with an age of two (2) years and mileage of approximately 31,000. Rides are scheduled and may be dispatched by CATA. Operators must be able to efficiently provide each type of service. Vehicle types are subject to change based on availability of funding, age of vehicles, mileage of vehicles and availability of vehicles in accordance with the Transportation Asset Management (TAM) Plan.

Runs are created by CATA and are subject to change due to ridership demand. The contractor will be subject to penalties if the required number of runs are not opened on any given day.

<u>Type of Service</u>	<u>Days of Operations</u>	<u>Hours of Service</u>
CATA Rural Service	Monday – Friday	7:00 a.m. to 6:00 p.m.
Mason Connector	Monday – Friday	6:30 a.m. to 6:00 p.m.
Mason Connector	Saturday	8:30 a.m. to 4:00 p.m.
Williamston/Webberville Connector	Monday – Friday	7:15 a.m. to 5:40 p.m.
Williamston/Webberville Connector	Saturday	7:20 a.m. to 4:35 p.m.
Mason Redi-Ride	Monday – Friday	6:30 a.m. to 6:00 p.m.
Mason Redi-Ride	Saturday	8:30 a.m. to 4:00 p.m.
MSU Lot Link	Monday – Friday	7:00 p.m. to 2:00 a.m.
MSU Lot Link	Saturday – Sunday	9:00 a.m. to 2:00 a.m.
MSU Lot Link	Holidays/break conclusions	2:30 p.m. to 2:00 a.m.
MSU Night Owl	Monday – Friday	2:00 a.m. to 7:00 a.m.
MSU Night Owl	Saturday – Sunday	2:00 a.m. to 9:00 a.m.
The Shopping Bus	Monday - Friday	8:30 a.m. to 4:30 p.m.

CATA reserves the right to provide service directly and to use other service providers. Respondent should indicate their willingness to provide additional service or substitute service.

## **Dispatching**

CATA schedules and the Contractor dispatches Supplemental Services.

## **Spec-Tran and Supplemental Services**

### **Trip Reservation (Spec-Tran and Supplemental Services)**

CATA is responsible for receiving customer ride requests. CATA's paratransit staff schedules trips that are to be provided by the Contractor. The Spec-Tran office is open every day of the year between 8:00 a.m. and 5:00 p.m. to receive customer requests for trips. Spec-Tran customers are to request trips no later than 5:00 p.m. on the day before the trip is needed. Currently, trips on Spec-Tran may be requested up to fourteen days before the trip is needed. The fourteen-day advance reservation period may be changed in the future if CATA determines that service quality or efficiency would improve as a result of the change. Reservations for trips on contracted Supplemental Services may be requested up to seven days before the trip is needed. Customers are notified of the 15 minute "Be Ready Window" for Spec-Tran and the 15 minute "On Time Window" for Supplemental Services at the time of booking.

### **Billable Service Hours**

CATA requires respondents to state that they can meet the service schedule provided. They should also provide the price per eligible hour of operation. Eligible hours for billing are from when the bus arrives to the first pick-up and when the bus drops-off the last passenger for Spec-Tran and from when the bus leaves the Contractor's property until it returns to the Contractor's property for Supplemental Services. Time spent for training, lunches, random drug and alcohol screenings and related reliefs, pre-trip and post trip inspections, maintenance, breakdowns, accident/incident investigations, creation of any reports, vehicle cleaning, fueling, service layovers and any time not accounted for in the run are not eligible costs for reimbursement. Billable hours must be measured to the nearest one-tenth (1/10) of an hour. If it is determined that the billing parameters should be temporarily altered, the changes may only be made upon written, mutual agreement of both parties.

### **Miscellaneous**

#### **Automatic Vehicle Locator and Mobile DATA Terminals**

CATA currently uses Trapeze automatic vehicle locator (AVL) and mobile data terminal (MDT) equipment. CATA will assist with training Contractor key personnel on how to use the equipment, the reporting requirements, and procedures for maintaining equipment when necessary. The Contractor will be responsible for training its personnel to competently use the equipment and for the accuracy of information entered. The Contractor will be responsible for using all functions of AVL and MDT technology for delivery of service and collection of data and reporting as required by CATA.

Contractor will be responsible to review and validate runs on a daily basis in Trapeze PASS for accuracy and to ensure proper billing and reporting and that CATA has the correct information for ridership review and government reports. The information which must be inputted, reviewed, and validated daily includes passenger counts, revenue service and deadhead times, mileage, and other run information as required by CATA. Invoices submitted by the Contractor will be reviewed by CATA staff and compared to data in Trapeze PASS. If Contractor fails to validate runs daily or if for any reason validations are late, incomplete, or inaccurate, liquidated damages will be assessed to compensate CATA for the time involved of CATA staff to complete and ensure the accuracy of validations.

#### **Communication with Operators**

The CATA office and all CATA vehicles are radio and Computer Aided Dispatch (CAD) equipped. The Contractor will be expected to monitor radio and CAD communication and promptly respond in case of mechanical breakdowns, emergencies, or problems with the radio system or MDT/CAD equipment at CATA. The Contractor shall also be required to provide two-way radio communication on the same frequency used on CATA vehicles if additional vehicles are provided by the Contractor. This may be accomplished by using handheld radios if the range of transmission is adequate.

#### **Computer Programs**

CATA will provide computer programs that are required for managing runs and dispatching trips and tracking the vehicle.

Contractor must state willingness to comply with all computer software licensing criteria and to comprehensively use the software given under this contract.

## Computer and Communication Equipment

The Contractor will be required to supply and maintain all computer and communication equipment that has sufficient memory, speed, and storage capacity needed for running the Trapeze PASS, AVL and MDT programs for producing reports required by CATA. This equipment includes, but is not limited to, computers, modems, printers, facsimile machines, telephone equipment, data lines and service. The costs of telephone service, Internet service, computer training and service agreements, repairs, paper and ink will be the responsibility of the Contractor. A wireless connection (Wi-Fi) must be sufficient to reach all vehicles when parked on Contractor's property. This connection will ensure that all vehicles are able to receive electronic updates, electronic files, and have the ability to download the operator's manifest prior to leaving the Contractor's property.

## II-D Contract Management and Responsibilities

### (a) On-Time Performance

The Contractor is responsible for meeting service quality and on-time standards as set by CATA.

Performance of this contract shall require the Contractor to meet a daily ninety-two percent (92%) on-time appointment and pickup performance standard unless CATA scheduling is the reason for late or missed trips. The "On-Time Window" or "Be Ready Window" is defined as the period beginning five minutes before the scheduled appointment time and no more than ten minutes after than the scheduled pick-up time. The only factor more important than on-time performance is safety. Due to extreme weather conditions, there may be days when strict on-time performance requirements will be waived in order to optimize safe operation. These days will be determined by CATA.

CATA will not tolerate failure to provide service due to a lack of vehicle operators or vehicles that are inoperable due the Contractors failure to maintain them. The Contractor agrees that time is of the essence in the performance of this contract. Failure to perform in accordance with agreement will be a material breach of contract, at the sole determination of CATA.

#### Ride Time

Ride time is the period a passenger spends onboard the vehicle; the elapsed time between pick-up and drop-off. The ADA requires that most trips be scheduled to last no longer than the actual time the same trip would take on the fixed route bus (including walking to the bus stop and waiting for the bus.) It is expected that ninety-two percent (92%) of all segments of ADA passenger trips during any month will be completed within the ADA guidelines. Rides of greater than 45 minutes must be minimized.

#### Wait Time

Vehicle operators will be required to wait at the pick-up location up to five minutes or until the scheduled pick-up time for a passenger unless it is confirmed that the passenger will not be ready. If the passenger is not visible to the driver, the driver must make a reasonable attempt to contact the CATA passenger before leaving. Such efforts will include radio communication with the dispatcher and checking that the driver is at the correct residence or building entrance. In all cases, dispatch must be notified of the impending no show. Dispatch approval is required before driver can leave.

#### Missed Trips

Contractors are expected to complete one hundred percent (100%) of all trips as scheduled and accepted. Trip completion is defined as a vehicle arriving to pick up a passenger within the 15 minute On-Time or Be Ready Window and getting the passenger to his/her appointment on time. In cases where the passenger was ready and available to travel, and the vehicle was not present within the time specified, the trip is considered "missed."

### (b) Quality Control and Quality Assurance

The Contractor will be responsible for monitoring and reporting on-time and service-quality standards on a frequent and regular basis and as requested by CATA. Proposals should include a written plan for monitoring on-time performance and service quality standards (*i.e.*, revenue hours, passengers per hour, customer comments, miles between accidents, preventative maintenance performance, etc.). The plan must also include how the plan will be administered and implementation assurances. In addition, the Contractor must employ a minimum of two (2) Road Supervisors whose primary duties are on the street in order to provide quality service. These supervisors are in addition to required key management personnel (*i.e.*, a General Manager, an Assistant General Manager or Operations Manager, Maintenance Manager and a Human Resources Specialist).

The Contractor must attend all Local Advisory Council (LAC) bi-monthly meetings and all LAC Service Quality Subcommittee bi-monthly meetings to be advised of, respond to and/or address any service-related issues, concerns and complaints and also provide input on any proposed service adjustments or changes.

### **(c) Penalties**

On-time performance may be documented by customer complaint, Contractor notification, and/or AVL record by CATA personnel, including Local Advisory Council members or by examination of the driver's manifest by determining whether the driver's scheduled time and actual arrival times exceed the appropriate window for each type of service, as noted above. Contractor(s) are required to report to CATA when they are late for any customer and does not meet the required on-time performance. CATA, at its discretion, may determine that on-time performance penalties should not be applied due to severe weather conditions.

A penalty fee equal to the Contractor's hourly rate for service will be levied for missed tripper as a result of Contractor performance.

Inaccurate reporting of hours, mileage, and passenger counts will result in CATA notifying the Contractor to correct the data. If repeated reporting problems are found, a penalty of \$100.00 per day per run may be imposed.

If CATA documents more than ten valid complaints other than on-time performance or lateness in any thirty- day period, the Contractor shall pay a penalty of \$1,000.00 for that month.

Radio conversations are to be brief, appropriate, and limited to CATA business. Inappropriate radio behavior will result in penalty of \$100.00 per occurrence.

A penalty of \$100.00 per day will be imposed for each day that ridership information has not been reported as described in Data Collection section of this RFP.

Performance penalties will be deducted by CATA from its monthly payment for services.

### **(d) Collision and Passenger Accident Procedures**

All accidents and all incidents of personal injury or property damage ("accidents") involving any vehicle used in connection with any type of CATA Service must be reported immediately to CATA. The Contractor's Road Supervisor(s) must respond to all such accidents and incidents for the purpose of determining the cause and extent of damage and injury. If it is determined by the Contractor's supervisor or CATA that the driver or other safety sensitive Contractor personnel contributed to the cause of the accident, such personnel must be tested for alcohol or drug use. Contractor must comply with all requirements of FTA regulations regarding drug and alcohol testing. The Contractor must provide CATA written documentation by the driver, supervisor, witnesses, and police reports, including drug and alcohol testing results, as soon as possible after the accident. Accidents resulting in a citation, towing of vehicle(s), or transportation of injured persons will require that CATA be contacted immediately by Contractor's management team.

Written documentation of all injury accidents and incidents involving passengers that are not a result of a vehicle accident must also be provided to CATA within 24 hours of occurrence. Documentation should include a description of how the injury occurred, how Contractor employees responded to the injury, an outline of follow-up conversations with the customer, date the injury was reported to the Contractor's insurance company, and recommendations for prevention of future injuries of the same type if possible.

### **(e) Replacement of Vehicles Damaged Beyond Repair**

The Contractor will be responsible for maintenance and repair of CATA vehicles provided to Contractor for the services. Vehicle replacement is based on the State of Michigan full life cycle and CATA replacement plan and funding. The total CATA Bus Fleet includes the Federal Transit Administration Guidelines for Spare Ratio. CATA will replace vehicles that are damaged beyond repair. Contractor will be responsible for the cost of replacing a vehicle damaged beyond repair prior to expiration of its useful life.

Vehicles that must be removed from service due to damage or condition that is beyond repair as a result of an accident, act of God, or otherwise must be returned to CATA promptly, even if prior to the Contractor collecting insurance claims.

CATA may change the mix of vehicles and/or add vehicles to the fleet during the contract term, and such actions shall not be the basis for any price increase. CATA vehicles are to be used exclusively for CATA services.

### **(f) Contractor Facility, Vehicle Fueling, and Vehicle Parking**

Contractor facilities must be located within the cities of Lansing (Ingham County), East Lansing, or within the townships of Delhi, Lansing or Meridian. These municipalities comprise the funding area of the Authority.

The Contractor will be responsible for vehicle fueling. Fuel purchased exclusively for CATA services is not subject to sales or excise taxes. The proposal must describe in detail how Contractor will procure sufficient high-quality fuel and discount pricing for tax exemption.

Prior to the expiration of the contract, CATA may purchase or convert vehicles to the use of alternative fuels, such as propane. If and when alternative fueled vehicles are used, CATA and the Contractor will discuss options for vehicle fueling and fuel locations.

Vehicle safety is extremely important. The Contractor shall describe in detail the safety and security measures to be used.

CATA prefers that its vehicles are parked in a fenced and gated area or indoors. An alternative may be that those vehicles are observed by security personnel when parked at the Contractor facility. Proposals should include a description of security measures used for prevention of vehicle theft and vandalism.

### **(g) Communication**

Due to the many components of CATA services and the differences that occur between services, communication between CATA and the Contractor is essential. The Contractor's key personnel must be available by telephone whenever service is operating. Contractor provided cellular telephones for the Contract Manager and the on-duty supervisors are required so that ready access is possible. An up-to-date contact list of key personnel including home and cellular telephone numbers is also required.

The Contractor shall be required to meet at least once per month with CATA personnel to discuss any aspect of the service as deemed necessary by CATA. It is required that Contractor key personnel attend CATA's bimonthly Local Advisory Council meetings.

Contractor's proposal must be specific as to communications and availability.

### **(h) Appearance and Courtesy**

The Contractor's employees shall be neatly groomed and dressed. Contractor purchased uniforms as approved by CATA shall be worn by drivers. The Contractor and its employees shall, in the performance of duties as outlined in this RFP, conduct themselves with the highest degree of professionalism and courtesy. All drivers providing this service shall be dressed in a collared light blue oxford style dress shirt, navy blue dress pants, and blue winter coat in season, dark dress shoes, and dark dress socks at the minimum. Employees should be neat, clean and clothing must be free of wrinkles. Hats that have been approved by CATA may be worn during winter when the driver is out of the vehicle assisting a passenger. Hats may never be worn while driving a CATA vehicle and caps of any kind are prohibited at all times.

### **(i) Smoking**

Smoking is not allowed in any CATA vehicle, building, or structure. Smoking is permitted outside on CATA property, only in designated smoking areas. Smoking may not take place within twenty-five (25) feet of a CATA vehicle. This includes e-cigarettes, all vaporizers and marijuana, and applies to all employees of the Contractor(s).

### **(j) Marketing**

CATA will be responsible for providing all public information materials on the service. The Contractor shall be responsible for obtaining from CATA adequate supplies of appropriate schedule brochures and keeping a sufficient supply in all vehicles. The Contractor shall be responsible for assisting in the distribution of public information and training of drivers to inform the public and passengers of all CATA services. The Contractor shall cooperate in the performance of passenger surveying efforts.

### **(k) Use of Cell Phones**

Contractor's vehicle operators are not allowed to use cell phones at any time while driving or while passengers are on board, boarding or alighting the vehicles. This includes use of hands free cell phone adaptations (for example Bluetooth devices). This also includes texting. Cell phones distract vehicle operators from the job they

are performing and personal calls and texting are not allowed under any circumstances while driving, while passengers are on board or boarding and/or alighting. Any cell phone the driver may carry while on the job must be turned off (not on "silent mode" or "vibrate mode") while the driver is in revenue service to CATA. In addition to the above, it is the contractor's responsibility to make sure vehicle operators follow any state and/or local laws governing the use of cell phones, whether hand-held or hands-free for talking or for texting. Any violation of the policy will result in immediate removal of that employee.

## **(l) Employee Removal**

CATA reserves the right to interview any personnel assigned by the successful respondent to this project and to recommend reassignment of personnel deemed unsatisfactory by CATA.

CATA further reserves the right to require the Contractor to immediately remove any employee from CATA services if, in its sole opinion the employee is performing in a way that is unsatisfactory. Reasons for which CATA might request that an employee be removed include, but are not limited to:

- (1) Actions or performance which is illegal, unsafe, inappropriate or not in keeping with reasonable expectations for the employee's assigned position or duties.
- (2) Failure to meet or maintain minimum standards established for the employee's assigned duties. For example: Non-eligible driving status; revocation or non-renewal of a valid Michigan driver's license; failure to notify Contractor of an arrest or conviction of a criminal offense; any moving violation, including, especially, reckless driving citation or operation with impaired, or under the influence or intoxicated (DWI, DUI, etc.) charge or citation before the end of the business day (5:00 p.m.) following the day the employee receives notice of such action.
- (3) Distributing any unauthorized materials while performing services under this Contract
- (4) Soliciting a gratuity from a passenger.
- (5) Incurring excessive customer complaints due to discourtesy, rudeness, use of profanity, or any other act deemed unacceptable, as demonstrated by three or more complaints of the same nature within a twelve-month rolling period.
- (6) Repeated failure to adhere to program policies, rules, or procedures.
- (7) Failure to pass or refusal to take a drug or alcohol screen conducted in accordance with FTA drug and alcohol testing requirements.
- (8) Contractor employees are not permitted take the CATA vehicles to a private residence, transport unauthorized passengers, or use a CATA vehicle for personal business.
- (9) Any threats or acts of terror.
- (10) Negative or derogatory comments or statements, including internet postings, regarding CATA, its staff, or passengers.

## **(m) Drug and Alcohol Policy**

It is the policy of CATA to provide safe and dependable transportation, promote and maintain a safe and healthful working environment for all employees, protect our employees, passengers, and the public from risks posed by use of alcohol and drugs, and to comply with all applicable state and federal laws and regulations.

The Contractor must implement a Drug and Alcohol Policy that meets the requirements defined by the FTA regulations and any other federal, state, or local requirements that apply.

The Contractor shall provide CATA with the name, state, driver license number, and a copy of the valid and effective license for all safety-sensitive employees who drive or control the movement of CATA vehicles. Prior to providing service for CATA, the Contractor shall also submit proof that each of these individuals has passed a pre-employment drug screen test for alcohol and the five substances prohibited by FTA regulations.

Random drug and alcohol testing must be conducted on the percentage of employees determined by the FTA. The list of names with proof of testing shall be updated and submitted to CATA on a monthly basis. Upon reasonable suspicion of a supervisor which is supported by another supervisor (unless another supervisor is not reasonably available), an

employee may be required to undergo drug and alcohol testing. The requirement for more than one supervisor does not modify the authority of a single supervisor to evaluate fitness for duty and take appropriate action, including immediately relieving an employee from duty.

Anyone convicted for possession, sale, or distribution of any prohibited drug or alcohol in the workplace will be cause for prohibiting the convicted employee from working on any aspect of CATA contracted service.

The Contractor shall make every effort to assure the confidentiality throughout the testing process and to protect the individual dignity and the right to privacy of each employee. In the event the FTA mandates a stricter policy, the Contractor will comply with that policy.

Any employee who refuses to permit or falsifies urine and/or blood test administered under this policy shall be prohibited from working on any aspect of CATA contracted service.

In order to ensure compliance with CATA's Drug & Alcohol Policy, the Contractor will be subject to audits by FTA and CATA. Contractor must provide all documents and reports on drug and alcohol testing, as requested by CATA, and promptly cure any non-compliance with policy, testing, and reporting requirements. See CATA's Terms and Conditions for further requirements.

FAILURE TO COMPLY WITH THE ABOVE POLICIES AND PROCEDURES WILL RESULT IN THE TERMINATION OF THE CONTRACT.

## **(n) Operating Cost**

The Contractor shall be responsible for all of the following costs:

- (1) Contractor employee wages and benefits including insurance.
- (2) Vehicle repair and maintenance expenses.
- (3) All vehicle fluids including gasoline/fuel and oil.
- (4) Vehicle insurance.
- (5) Worker's compensation insurance.
- (6) Pre-employment expenses including testing.
- (7) Employee training.
- (8) Uniforms.
- (9) Cellular telephones for employees who require one, including monthly service invoices.
- (10) Computer and communication equipment, services and repairs.
- (11) Uncollected passenger fares and fees.
- (12) Licenses.
- (13) All applicable taxes, bonds, and any licenses required by law (federal, state, and local).
- (14) Drug and Alcohol Testing and Reporting.

## **(o) Maintenance of Vehicles**

All maintenance staff employed by Contractor must be trained, knowledgeable, and competent to complete the work.

Contractor is responsible for maintaining all vehicles it uses in connection with providing Services in accordance with CATA's maintenance standards and requirements.

At a minimum, the vehicle exterior and interior must be completely cleaned on a daily basis. The Contractor shall be responsible for keeping the interior free of litter and ensuring that the floor and all seats are clean. The Contractor will be responsible for providing complete maintenance and service of vehicles, including radios. This also includes regular preventive maintenance and record keeping, mechanical repairs, tires, parts, and labor. Regular preventive maintenance inspections must be conducted in accordance with CATA's vehicle maintenance plan as described below. (See Attachment E). The small bus preventative maintenance (PM) process is to be performed routinely with the frequency determined by operational miles. The engine fuel type will determine the frequency of the interval. The three separate PM intervals for Small Vehicle Preventive Maintenance Procedure are listed below.

Gasoline-Powered Vehicles under 7,000 lbs. Gross Vehicle Weight:

PM INSPECTION A is performed every 3,000 miles;

Gas and Diesel-Powered Vehicles over 7,000 lbs. Gross Vehicle Weight:

PM INSPECTION A is performed every 5,000 miles;

PM INSPECTION B inspection is performed at the 15,000-mile intervals and includes the preventive maintenance items covered in PM-A; and

PM INSPECTION C is performed at 60,000-mile intervals and includes the preventive maintenance items covered in PM-A and PM-B.

There are minor differences in these inspections, but all are designed to meet or exceed the manufacturer's recommendations on the proper service and inspection intervals for severe service use of the vehicle.

The following components or systems must also be inspected and repaired if necessary during every scheduled Preventive Maintenance Inspection for the life of the vehicle:

- (1) The air conditioning system is inspected and kept active at each PM interval.
- (2) Oil analysis is included at each PM inspection. This is a very important tool in the preventative maintenance process. Oil samples are taken at each PM interval and submitted for analysis. A report on the oil condition must be maintained by the Contractor and submitted to CATA for review upon request.
- (3) All safety items must be inspected at each interval as well.
- (4) The wheelchair lift must be run through its entire cycle to ensure that all of the correct stop points are operating correctly. All wheelchair lift safety switches must be exercised to ensure proper and safe operation.
- (5) All emergency exits must be fully operated to ensure the latches and mechanisms are correctly operating. This includes egress windows and hatches.
- (6) All fire extinguishers must be inspected annually and display an up-to-date inspection tag.

It is preferred, but negotiable, that the Contractor use CATA's computer program for tracking repairs and preventive maintenance. If Contractor's system of record keeping of completed and scheduled maintenance procedures are not satisfactory to CATA, the Contractor, at Contractor's cost must utilize maintenance software program(s) which CATA uses for its vehicles.

Any CATA vehicles used by Contractor must only be used for passenger transportation in fulfillment of the Contract. No CATA vehicles may be used outside of CATA's service area, for non-contracted purposes, or for towing, pushing, carriage of goods, storage, or other non-passenger transportation use.

The Contractor shall maintain and operate the vehicles and other equipment at its own expense, in accordance with CATA's vehicle maintenance plan (See Attachment E).

Respondents must describe in the proposal how they will meet CATA's vehicle maintenance requirements.

## **(p) Assessment of Liquidated Damages**

Contractor failure to perform in accordance with the contract will cause damage to CATA and its services that cannot be calculated with certainty, including loss of confidence by system users, bad publicity, passenger complaints, and funding issues. For this reason, liquidated damages will be assessed against Contractor for the below specified failures.

Assessment of liquidated damages shall not be construed as a waiver or release by CATA of any Contractor default or breach of contract.

**Liquidated damages shall be assessed at the rate of Fifty Dollars (\$50.00) per occurrence for:**

- Vehicle body damage in excess of \$250 not repaired within 30 days of the incident;
- Vehicle heating or air conditioning failure while in service (in season);
- For each vehicle operating in CATA service without proper signage/decals;
- For each vehicle operating in CATA service displaying unauthorized signage, postings or graphics of any kind not expressly approved by CATA
- Broken interior or exterior lights or signals when vehicle is in service (any time of day);
- For each vehicle running out of fuel while in CATA service;
- Failure to properly store wheelchair, securement and belts/straps when vehicle is in service and belt/straps are not required;
- Failure of driver to display his/her ID badge or possess a valid driver's license and DOT medical card on their person while in CATA service;
- Failure to meet 92% OTP daily.

**Liquidated damages shall be assessed at the rate of One Hundred Dollars (\$100.00) per occurrence for:**

- Insufficient personnel on duty to perform required service;
- Failure to notify CATA of any passenger accident or passenger injury within one (1) hour of occurrence.

**Liquidated damages shall be assessed at the rate of Two Hundred Fifty Dollars (\$250.00) per occurrence for:**

- Each vehicle not being properly maintained as defined by manufacturers' recommended standards;
- Failure to maintain an up-to-date history and mileage record;
- Failure to perform preventive maintenance within 500 miles of the scheduled interval;
- Use of any vehicle in CATA revenue service that does not meet the minimum standards covered in this RFP;
- Use of an unauthorized vehicle to transport any CATA patrons;
- Use of any driver in CATA revenue service who does not meet the minimum standards;
- Willfully and knowingly failing to pick up a scheduled rider;
- Insufficient number of vehicles to perform Contractual obligation (per vehicle per day);
- Closure of any run on any day without prior CATA approval;
- Removal of parts from out-of-service vehicles to install on another vehicle because the parts are not immediately available;
- Failure to perform testing required for the detection of drugs and alcohol required under Section M in the Scope of Service
- Failure to properly secure any wheelchair or ambulatory patron while being transported in CATA service;

- Failure to maintain any driver file with required documents as outlined in the Scope of Service (including, but not limited to; criminal background checks, motor vehicle checks, drug and alcohol testing results, driver complaints, training records, etc.).

### **Extraordinary Performance Failures**

In some cases, CATA has experienced an extraordinary failure by a Contractor to perform in certain circumstances. These instances have presented CATA with a very difficult and expensive management challenge to rescue the service. If this type of situation occurs, CATA may waive the application of itemized liquidated damages and may replace these with a single penalty addressing the entire situation. The cases in which this remedy may be applied are as follows:

A liquidated damage assessment of One Thousand Dollars (\$1,000.00) per occurrence for:

- Unauthorized use of a CATA-Contracted vehicle;
- Each vehicle which has been out of service for 90 days or more (major accidents excluded)
- For each vehicle that fails a random Inspection where major defects are found liquidated damages shall be assessed.
- Violation of the U.S. Dept. of Transportation or U.S. Dept. of Justice ADA regulations (49 CFR Parts 27, 37, and 38).
- A pattern or practice of failure to comply with contractual requirements for drug and alcohol testing.
- A Contractor employee operates a CATA vehicle in service (a) without a valid license with eligible driving status, (b) recklessly resulting in an accident or injury, or (c) under the influence or impaired by alcohol or drugs.
- Contractor employee engages in indecent or immoral conduct or is charged with a felony related to CATA service.

### **(q) Insurance**

Contractor must provide CATA with certificates of insurance from responsible carriers, with CATA as a named insured, for the types and amounts of coverage satisfactory to CATA. All insurance coverage must include a provision that requires that CATA receive thirty (30) days' written notice in the event of cancellation.

### **(r) Personnel and Training**

CATA places a high value on the quality of the Contractor's employees and the Contractor's ability to retain employees. Staffing levels for operators shall assure that all routes are covered every day. Contractor may not close or modify runs because they do not have sufficient staff reporting to work.

The proposer shall describe its plans for recruitment, evaluation, and retention of a trained and qualified workforce throughout the term of the contract. This should include a complete description of pay rates and progression scales for all hourly employees, and pay ranges for salaried employees throughout the course of the contract. The proposer shall describe the fringe benefit package that will be offered to hourly and salaried employees. A copy of the employee handbook should be included in the proposal. Staffing levels for operators shall assure that all routes are covered. The proposal shall include the monthly average turnover rate for operators at three comparably size contracts in place in 2021. (Turnover rate shall be computed as total number of annual operator hires divided by total operator positions available). If wages vary by contract then the proposal shall indicate the monthly turnover average rate for operators at three contracts in place in 2021 indicating hourly wages.

Contractors will be solely responsible for the provision, oversight, and satisfactory work performance of all employees required to deliver the transportation and related services described in this RFP. Such responsibility will include the payment of wages and benefits, including compliance with requirements of worker's compensation, unemployment insurance, and Social Security.

### **Required Key Management Positions**

Contractor(s) shall appoint four (4) specialists approved by CATA to manage all services. CATA to manage all services (*i.e.*, a General Manager, an Assistant General Manager or Operations Manager, Maintenance Manager and a Human Resources Specialist). The four (4) key positions shall be assigned on a full-time basis. These key positions are in addition to the two (2) road supervisors and a designated training/safety position.

### **Dispatchers and Schedulers**

Proficiently trained dispatchers are required in order to keep the service timely, efficient and productive. CATA provides scheduling of all trip requests. The closure or opening of more than one (1) run for any reason except vehicle breakdown must be approved by CATA. Contractor(s) documentation shall be maintained and forwarded to CATA daily regarding operational decisions such as reasons for shutting down runs or adding runs or adding or removing vehicle revenue hours to runs. Revenue hours are defined as "the hours that vehicles are scheduled to or actually travel while in revenue service."

The contractor will be responsible for provision of service in a safe, efficient, economical manner, printing of manifests (when necessary) or properly downloading manifests to vehicle operators and dispatching same to vehicle operators. Dispatching should be carried out in a manner which maximizes the productivity of vehicle operators and vehicles while meeting the standards for service quality established by CATA. All services are offered on a shared-ride basis. It is desirable to group trips, where possible, to increase vehicle productivity.

CATA takes considerable time and effort to schedule trips that will be on-time and will be performed without any service violations (as noted in the PASS scheduling system.) Contractor should take time and consideration before requesting CATA approval to re-schedule trips before the day of service. If trips have to be moved prior to the day of service, no such movement should result in more than a minor violation in the trip scheduling software.

Contractor(s) will be required to have trained staff available for telephone communication with the CATA office during all times when the CATA office is open. Contractors will be required to have a public telephone number with a proficiently trained customer service staff person(s) available to take calls during all times when they are operating any service.

### **Passenger Assistance**

Contractors are required to use the highest degree of care in the operation of equipment and assistance of passengers. Vehicle operators are not required to provide personal care attendant (PCA) duties for passengers. For any parcels brought on board, vehicle operators will make sure the bags/parcels are stowed properly to minimize hazards while driving. All bags and parcels remain the sole responsibility of the passenger.

### **Driver Selection and Training**

To perform this work it is anticipated Contractor will need a minimum of 100 employees, with 110 being preferred. Proposals should include how many employees Contractor presently has available to fulfill these duties and the pay rate for these employees.

All Drivers must be at least 21 years of age and must have possessed a valid US Driver License for at least five years. Drivers:

- Must possess the appropriate class of license for the type of vehicle to be operated.
- No violations, convictions, points or suspension(s) in the past three (3) years for any of the following:
  - a. Driving under the influence or impairment of alcohol or drugs;
  - b. Leaving the scene of an accident;
  - c. Careless or reckless driving.
  - d. Other serious moving violations.
  - e. Notwithstanding the above or anything in this RFP to the contrary, disqualification from employment based upon criminal history shall be reviewed on a case-by case basis with consideration of the relevance of such history to the employment position and legal requirements.

- No violations of convictions for any of the following:
  - a. Negligent homicide;
  - b. Manslaughter;
  - c. Any criminal sexual conduct offense;
  - d. Any child abuse or child molestation offense; or
  - e. Fleeing an officer.
- Must pass an alcohol and a DOT pre-employment drug screen and must be able to pass all random, post-accident and any reasonable suspicion drug and alcohol tests which may be administered in accordance with FTA requirements throughout the life of this contract.
- Must demonstrate mastery of all topics covered in pre-employment and ongoing driver training.
- Must maintain a neat, clean and professional appearance which meets the requirements of this contract.
- Must have a strong knowledge of CATA service area, including the road network, major points of interest and how to use provided tools to locate and navigate between specific addresses.

Employees of Contractor are not and will not be employees of CATA. Contractor shall be solely responsible for all selection, employment, training, and compensation of personnel for this contract, including any costs associated therewith. All drivers shall have an understanding of working with customers including those with special needs, an excellent driving record, a familiarity with the service area, and an understanding of other transportation services provided by CATA. Minimally, drivers and mechanics must possess a Michigan Commercial Driver License with the class type and endorsements that are appropriate for the type of vehicle driven, if required by state or federal law.

Training requirements shall include formal classroom and behind the wheel training, training in vehicle operation, service area geography, passenger characteristics/assistance. ADA standards and all program rules/guidelines will be required for all supervisors, dispatchers, and personnel operating vehicles in service for CATA.

CATA will conduct monthly and random reviews of drivers' Motor Vehicle Reports (MVR).

All vehicle operators must be properly licensed in the State of Michigan, including Commercial Vehicle operator's License.

The following background checks must be ordered and received for any operator who will be providing service to CATA passengers:

- a. Criminal background (State/City/County)
- b. OTIS/CSC (Registered Sex Offender List)
- c. Driving record
- d. Employment history
- e. Alcohol and Drug Testing with prioremployers

On request, Contractor(s) must provide CATA with documentation on these background checks.

Before operating any service outlined in this RFP, drivers must receive training on the following:

1. CATA approved Passenger Assistance Handicap Awareness Training
2. CATA's customer service philosophy

3. Radio Procedure Training
4. Wheelchair Securement Training
5. Defensive Driver Training
6. CDL training (if required)
7. Adverse weather training
8. Bloodborne Pathogen/Universal Precautions Training
9. Appropriate Substance Abuse Training for allemployees
10. General services provided by CATA services including an overview of fixed routes, Spec-Tran, fares, transferring between CATA services, and where to refer customers for more detailed information
11. Use and operation of AVL equipment

### (s) Fare Handling

The Contractor will be responsible for collecting and reporting all fares in accordance with rates established by CATA. Fares are paid in cash, by advance purchase of multiple-ride cards, or tokens. All fares shall be CATA's revenue. If a punch pass is used, the punch pass serial number must be noted on the operator's manifest. If the punch pass serial number is not recorded, CATA will consider the fare as being paid in cash and will deduct it from the monthly bill. The fare amount for each passenger type will be determined by CATA and will appear on the AVL MDT and/or manifest. If a fare is not paid or noted as free on the manifest, the trip should not be provided without notification to CATA and authorization by CATA to provide the trip. All vehicles provided by CATA are equipped with fare boxes that have locked vaults. All fares shall be CATA's revenue.

#### A. ADA Complementary Fares

Currently, the fares are:

CATA Employee or dependent	Free
Certified ADA Customer	\$2.50
Personal Care Assistant	Free
Children under 42 inches tall	Free
Guest	\$2.50

#### B. Supplemental Services Fares

Currently, the fares vary by service area, passenger type and distance ranging from \$.60 to \$3.25 per passenger.

CATA Employee or dependent	Free
Children under 42" tall and PCAs	Free

#### C. Shopping Bus

Currently, the fares are:

Seniors	\$2.00
Guest	\$2.00
Personal Care Assistant	Free

**D. MSU Lot Link**

Currently, the fares are:

Regular	\$1.25
With valid student ID	\$0.60

31 Day Passes and ten (10) ride cards can also be used to pay for the rides.

**E. MSU Night Owl**

Currently, the fares are:

Regular	\$1.25
With valid student ID	\$0.60

31 Day Passes and ten (10) ride cards can also be used to pay for the rides.

The Contractor(s) must follow a secure fare collection system approved by CATA that provides accountability of collection of fares. Contractor(s) Operators are not to handle fare. The Contractor(s) must have a secure location for storage of collected fares and fare box vaults. Fare collection information including method of payment must be documented on the monthly invoice provided to CATA. Vaults must be pulled bi-weekly at a minimum and CATA must be notified that the fares are ready to be picked up. The Contractor(s) must also provide driver and dispatch logs showing the number of passengers by fare category, and amount collected on a daily basis. CATA reserves the right to audit fare collection procedures at any time. CATA may require that cash fares be retained by the Contractor and deducted from the monthly bill.

CATA is open to hearing Fare Handling ideas. Respondents who believe that Fare Handling can be improved should include details in their proposal.

**(t) Data Collection and Reporting****Data Collection**

The Contractor shall be required to collect various data as determined by CATA. The Contractor shall accurately and completely enter required information regarding actual times, mileage, and fares collected. The method of data collection and the format of reports are subject to change at the discretion of CATA. CATA may require additional data as it believes necessary.

**Reports**

The Contractor must also submit quarterly and annual safety, training, drug and alcohol testing, and other reports in a format as determined by CATA.

**(u) Lost and Found Items**

Operators must check the vehicle driven at the end of each day. Any items that customers have left behind must be given to a Contractor employee who will be responsible for maintaining a log of lost items. All items that have been left behind and that are not perishable must be logged and brought to the CATA offices at least once per week unless other arrangements have been made with CATA.

**(v) Firearms**

CATA prohibits Contractor(s) and its employees from processing firearms at any time while operating or traveling in a CATA vehicle or on CATA property.

## (w) Complaints

Complaints received by CATA will be sent to the Contractor electronically. The Contractor will be responsible for investigating the complaint and providing CATA with the details of action taken summarizing their findings and the corrective action(s) taken, or to be taken, as appropriate to resolve or prevent recurrence of the problem within three days of receiving the complaint. The Contractor will be required to submit the complaint response on the complaint form and return it electronically.

Approved CATA personnel or personnel hired by CATA shall be allowed to ride in a vehicle at any time during its operation in order to survey service. CATA personnel or their designees shall be allowed to inspect the vehicles and property of the Contractor at any time during business hours.

Any operator performance or service discrepancies noted by CATA personnel that are reported to the Contractor must be brought to the operator's attention. The Contractor will be required to provide a confidential written report to the Paratransit Manager describing the resolution or action taken by the Contractor to correct the problem and prevent recurrence.

Vehicle, operational, policy or service standards violations shall be dealt with pursuant to the above procedure.

If CATA determines that any Contractor personnel is involved in illegal activity or contributes to an unsafe condition while operating the service, the Contractor must comply with CATA's request that the Contractor employee be prohibited from participating in delivery of any CATA service.

## (x) General Requirements

**Timeliness:** The services of the successful Respondent are to commence upon execution of the contract.

**Meetings:** The successful Respondent shall meet with the CATA Project Manager during the project at least once monthly or as frequently as determined by the CATA Project Manager. These sessions may be conducted over the telephone, in person, or via e-mail, as determined by the CATA Project Manager. The Contractor shall make immediate phone calls to the CATA Project Manager if any significant problems are encountered during the project.

**Oral Presentations:** In addition to any committee and/or community outreach meetings established in the scope of work, the Contractor may also be required to make presentations to other parties as required by CATA.

**Progress Reports:** The successful Respondent shall provide written memos to CATA's Project Manager as needed to regarding problems and solutions.

## (y) Subcontracting

If a circumstance occurs and the Contractor lacks the resources to perform the requirements listed in the scope of work, or any additional work assigned, the Contractor is required to obtain written permission from CATA before any subcontractors are retained. CATA has thirty days to approve or deny the Contractors recommendation of the subcontractor.

## (z) CATA Responsibility

CATA will provide:

Vehicles equipped with AVL – MDT and radios;

Limited dispatching and scheduling to the template;

Service and schedule information;

Computer programs required by CATA:

Training, as requested; and

Reviewing contractor(s) validated invoices for prompt payment.

**(aa) Fuel Escalator**

Upon the effective date of this Agreement, the compensation due the Contractor under the agreement shall be adjusted by CATA and the Contractor on a quarterly basis to account for fluctuations which may occur in the price of fuel purchased for the services under this agreement. At the end of each quarter, an average cost of fuel purchases made will be computed by the Contractor and reported to CATA. Should the average price incurred by the Contractor during the quarter exceed \$3.75 per gallon inclusive of federal and state taxes, if any, CATA will pay the Contractor the difference between the actual average fuel cost and \$3.75 per gallon multiplied by the number of gallons used in the quarter. Conversely, if the average cost of fuel purchase for any quarter fall below \$3.75 per gallon, the Contractor will reimburse CATA the difference between the actual average price and \$3.75 per gallon multiplied by the number of gallons used in the quarter. The Contractor shall be required to provide all necessary supporting documentation regarding the purchase of fuel and its average calculation. Said cost of fuel shall not include federal, state, and local environmental fees, if any, that are applicable to fuel purchased for CATA services. This adjustment provision shall remain in effect during the life of this agreement.

- (a) The Contractor will purchase fuel for the services at low rack wholesale prices for the services at Lansing area retail stations with fuel discount card arrangements.
- (b) Should the Contractor purchase fuel with levies or charges for excise or sales taxes, the Contractor will provide CATA with documentation related to its filing for allowable fuel tax credits, refunds and adjustments. The Contractor shall make a good faith effort to work with CATA to achieve the status that allows the Contractor to receive fuel tax credits and refunds. If that status is achieved, the fuel tax credits and refunds shall be turned over to CATA.

## SECTION III: COMPLIANCE REQUIREMENTS

### III-A FTA and MDOT Required Clauses

The contractor will comply with all relevant procurement and contract requirements of the Federal Transit Administration (“FTA”) and the Michigan Department of Transportation (“MDOT”). See, for example, FTA Best Practices Procurement Manual, Appendix A.1 and FTA Circular 4220.1F.

The website address of the Federal Transit Administration is [www.fta.dot.gov](http://www.fta.dot.gov).

The website address of the Michigan Department of Transportation is [www.michigan.gov/mdot](http://www.michigan.gov/mdot).

The contractor shall furnish to CATA upon request, certificates of compliance with all such laws, rules and regulations. The contractor shall, at its own expense, be responsible for obtaining all necessary permits and licenses required for performance of the contract.

All contractual provisions required by MDOT or mandated by FTA as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. The contractor shall not perform any act, fail to perform any act or refuse to comply with any CATA requests which would cause CATA or the contractor to be in violation of FTA or MDOT terms and conditions.

### III-B Disadvantaged Business Enterprises

Disadvantaged Business Enterprises (“DBE”) are encouraged to bid on this project. Any applicable DBE firm’s certifications must be included in the proposal. Cost Proposals must list the amount and activity of service provided by the DBE firm, as applicable. Information on becoming certified as a Disadvantaged Business Enterprise is available from Michigan Department of Transportation (“MDOT”) at the following website address: [http://www.michigan.gov/mdot/0,4616,7-151-9625\\_21539\\_23108---.00.html](http://www.michigan.gov/mdot/0,4616,7-151-9625_21539_23108---.00.html).

### III-C Compliance with Laws

The contractor shall comply with all federal, state, and local laws, ordinances, rules, regulations, and orders, including, but not limited to:

1. Motor Carrier Safety Act, 1963 P A 181, as amended.
2. Motor Bus Transportation Act, 1982, P A 432, as amended.
3. Rules and Regulations of the Department of Transportation may promulgate to accomplish the purpose of 1990 P A 339.
4. Motor Safety Carrier Regulations, being 49 CFR, Parts 387, 390-393, 395-397, and 399 including appendices C, D, E, and G.
5. Drug-Free Workplace Act of 1988.
6. Procedures for Transportation Workplace Drug Testing Progress, 49 CFR 40.
7. Physical Qualification Requirements of 49 CFR 391.41 to 391.49.
8. Lobbying Disclosure Act of 1985, *attached*, must be signed by Respondent and included with proposal submission.
9. Iran Economic Sanctions Act Certificate per MCL 129.311 *et seq.*, *attached*, must be signed by Respondent and included in proposal submittal.
10. Non-Discrimination Clause per 49 CFR, Part 26.
11. Prohibition of Discrimination per 1976 P A 453, Public Acts of 1976.

Upon request, contractor shall furnish to CATA certificates of compliance with all such laws, rules and regulations. The contractor shall, at its own expense, be responsible for obtaining all necessary permits and licenses required for performance outlined in this RFP.

Information regarding the regulations listed above may be obtained from the Federal Motor Carrier Safety Administration at <https://www.fmcsa.dot.gov/>.

### III-D Ownership

All original documents, calculations, and work product produced by contractor, whether produced on paper or electronic media or otherwise in performance of this Agreement, shall be the property of CATA. Contractor shall have the right to retain a copy of such documents, calculations, and work product. Contractor shall make available to CATA copies of all contractor correspondence, notes, and other papers relating to the work, upon request of CATA. All works of original authorship created in the scope of this Agreement are “works made for hire”, as that term is used in connection with the U.S. Copyright Act. To the extent that by operation of law contractor retains any intellectual property rights to any work product, contractor hereby irrevocably assigns and licenses to CATA all right, title, and interest in such work product, including copyrights and patents, and agrees to execute such assignments and licenses as may be required in the opinion of CATA’s legal counsel to confirm this provision. The work product produced by contractor in the performance of services under this agreement is intended for use by CATA solely for the purpose intended. Any use or reuse of such work product by CATA for any purpose other than its intended purpose shall be at the sole risk of CATA and without any liability or responsibility of contractor. To the extent that the work product produced by contractor contains standard design or construction details or other standardized material previously developed by contractor in its professional architectural, engineering, and planning practices, then contractor shall have the right to reuse any such material on other projects for other clients or persons without the prior knowledge or permission of CATA and without the payment of any compensation to CATA, provided that the reuse or continued use of such material contains no CATA identifying information or confidential information.

### III-E News Releases

News releases pertaining to this RFP or the services, study, data, or project to which it relates will not be made without prior written CATA approval, and then only in accordance with the instructions from CATA’s Executive Director.

### III-F Audit and Inspection of Records

In the case of all negotiated contracts, and contracts for construction, reconstruction, or improvement of facilities and equipment which were entered into under other than competitive bidding procedures, the contractor agrees that the grantee, the Comptroller General of the United States, or any of their duly authorized representative shall, for the purpose of audit and examination, be permitted to inspect all work, materials, payrolls, and other data and records, and accounts with regard to the project. Further, the contractor agrees to maintain all required records for at least three (3) years after grantees make final payments and all other pending matters are closed.

### III-G Complaints or Protests

CATA’s Procurement Protest Procedures are available online at [www.cata.org](http://www.cata.org).

### III-H Contractual Terms and Conditions

See attached Appendix A, CATA Standard Terms and Conditions, for details.

## **APPENDICES**

- Appendix A: CATA Standard Terms and Conditions
- Appendix B: Prohibition of Discrimination in State Contracts
- Appendix C: Assurances That Recipients and Contractors Must Make
- Appendix D: Certificate of Lobbying
- Appendix E: Disadvantaged Business Enterprise Policy
- Appendix F: Iran Sanction Certificate
- Appendix G: Certification of Primary Contractor Regarding Debarment, Suspension and other Responsibility Matters
- Appendix H: Certification of Lower-Tier Participants (Sub-contractors) Regarding Debarment, Suspension and other Responsibility Matters

## APPENDIX A

### CAPITAL AREA TRANSPORTATION AUTHORITY STANDARD TERMS AND CONDITIONS OF PROCUREMENT

#### A. THE FOLLOWING TERMS AND CONDITIONS WILL BE A PART OF THE CONTRACT AWARDED.

1. **CHANGES.** CATA, at any time, by a written order, and without notice to the sureties, may make changes within the general scope of this contract, in (a) drawings, designs or specifications where the supplies to be furnished are specifically manufactured for CATA in accordance therewith; (b) method of shipment or packing; and (c) place of delivery. If any such change causes an increase or decrease in the cost of, or the time required for performance of this contract, whether changed or not changed by such order, an equitable adjustment shall be made by written modification of the contract. Any claim by the Contractor for adjustment under this clause must be asserted within thirty (30) days from the date of receipt by the Contractor of the notification of change; provided that CATA, if it decides that the facts justify the action, may receive and act upon any such claim if asserted prior to dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes." However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.
2. **TERMINATION FOR DEFAULT.** CATA, by written notice, may terminate the contract awarded on the basis of this proposal, in whole or in part, for failure of the Contractor to perform any of the provisions hereof. In such event, the Contractor shall be liable for damages, including the excess cost of reprocurring similar supplies or services, provided, that if (a) it is determined for any reason that the Contractor was not in default or, (b) the Contractor's failure to perform is without his control, fault or negligence, the termination shall be deemed to be a termination for convenience under the following Paragraph 3.
3. **TERMINATION FOR CONVENIENCE.** CATA, by written notice, may terminate the contract, awarded on the basis of this proposal, in whole or in part, when it determines it is in the best interest of CATA. If this contract is for supplies and is so terminated, the Contractor shall be compensated in accordance with its auditable cost incurred at the time of notification of termination. To the extent that the contract is for services and is so terminated, CATA shall be liable only for payment in accordance with the payment provisions of the contract for services rendered to the effective date of termination.
4. **ADDITIONAL INFORMATION.** The Contractor shall promptly furnish any additional information requested by CATA relative to the equipment it proposes.
5. **SUPPLIER RESPONSIBILITY.** No advantage shall be taken by the Contractor or its Subcontractor in the omission of any part or detail which goes to make the equipment complete and operable for use by CATA. In case of any variance, this specification shall overrule Contractor or Subcontractor specifications. The Contractor shall assume responsibility for all materials used whether the same is manufactured by the Contractor or purchased ready made from a source outside Contractor's company. In the case of the replacement of a Subcontractor, the Contractor must, within five (5) working days, notify CATA in writing of the replacement and provide name, address, telephone number, and the type of service.
6. **DELIVERY.** Service and/or equipment will be delivered to Capital Area Transportation Authority, 4615 Tranter Street, Lansing, Michigan 48910. The Authority will assume custody of all property at one of its other locations, if so directed, in writing by CATA. Invoices shall be furnished with the delivery of each item. CATA reserves the right to inspect all deliveries or services before acceptance.
7. **BREACH OF CONTRACT.** If the Contractor shall fail, refuse or neglect to comply with the terms of these contract conditions, such failure shall be deemed a total breach of contract. Contractor shall be subject to all legal remedies that CATA may have and CATA may recover, in addition to any damages or costs relating to failure to comply, its reasonable attorneys' fees resulting from Contractor's breach.
8. **DISPUTES (AFTER BID AWARD).** Except as otherwise provided in the contract, any dispute concerning a question of fact arising under the contract which is not disposed of by agreement between CATA and Contractor shall be decided by CATA's Program Manager in writing, with a copy mailed or otherwise furnished to the Contractor. The decision of CATA shall be final and conclusive unless within ten (10) days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to CATA a written appeal addressed to CATA's Chief Executive Officer for the determination of such appeal, which shall be final and conclusive, unless determined by a court of competent jurisdiction to have been fraudulent or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending a final decision of the dispute, the Contractor shall proceed diligently with the performance of the contract and in accordance with CATA's decision.
9. **DELIVERY EXTENSION AND DELAYS.** CATA reserves the right to extend, postpone or reschedule delivery in case the delivery of service equipment, under this contract, shall be necessarily delayed because of strike, injunction, civil disturbance, government controls, or by reason of any cause or circumstance beyond the control of the Contractor, as detailed in writing by the Contractor, the time of completion or a delivery shall be extended by a number of days to be determined in each instance by CATA.
10. **INSTALLATION.** If specified, the Contractor shall install and place in operation, subject to approval by CATA, the equipment at the Contractor's expense within thirty (30) days from issuance of a notice to install issued by CATA.
11. **INSTALLATION EXTENSION AND DELAYS.** CATA reserves the right to extend, postpone, or reschedule installation in case the installation of equipment under this contract shall be necessarily delayed because of strike, injunction, civil disturbance, government controls, or by reason or cause or circumstances beyond the control of the Contractor. The time of completion or installation shall be extended by a number of days to be determined in each instance by CATA.

12. **ASSEMBLY.** If required, the Contractor shall assemble the equipment at its expense prior to installation.
13. **ACCESSORIES.** The Contractor shall furnish, without additional cost, all accessories required to permit CATA to operate any equipment being provided.
14. **TRAINING.** The Contractor, without additional cost, shall properly train CATA personnel in the operation and maintenance of the equipment provided.
15. **SERVICE MANUAL AND WIRING SCHEMATIC.** If specified, the Contractor will provide at least one copy of a service manual and at least one copy of a wiring schematic for individual components and other schematics and drawings.
16. **WARRANTY.** The Contractor shall describe its policy or warranty(s) both on workmanship and material as applying to the equipment, along with the method or adjustment, and shall be further subject to warranty requirements of CATA as set forth in the following Paragraph 17.
17. **CATA WARRANTY.** The Contractor agrees that the supplies or services furnished under this contract shall be covered by the most favorable warranties the Contractor gives any customer for such equipment and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to CATA by any other clause of this contract. The Contractor shall state the warranty and supply with its bid.
18. **INSURANCE.** The Contractor shall place and maintain with responsible insurance carriers the following insurance. The Contractor shall deliver to CATA, upon request, certificates of insurance which shall provide thirty (30) days' written notice to be given to CATA in the event of cancellation. Contractor shall require all Subcontractors to maintain adequate insurance coverage.
  - (a) Workers' Compensation and Employer's Liability Insurance.
    - (1) Workers' Compensation in compliance with the applicable state and federal laws.
    - (2) Employer's Liability. Limit \$1,000,000.
  - (b) Commercial General Liability Insurance, including Professional Liability, Blanket contractual, XCU Hazards, Broad Form Property Damage, Completed Operations, and Independent Contractor's Liability, all applicable to Personal Injury, Bodily Injury and Property Damage to a combined single limit of \$1,000,000 each occurrence/claim, subject to a \$2,000,000 annual aggregate for Professional Liability, Completed Operations and Personal Injury other than Bodily Injury.
  - (c) Automobile Liability Insurance, including owned, hired and non-owned automobiles, Bodily Injury and Property Damage, to a combined single limit of \$1,000,000 each occurrence.
19. **INDEMNIFICATION.** In addition to the protection afforded by any policy of insurance, the Contractor agrees to indemnify, defend, and save harmless CATA, the Michigan Department of Transportation ("MDOT"), the Federal Transit Administration ("FTA"), and all officers, agents, and employees thereof:
  - (a) From any and all claims by persons, firms, or corporations for labor, materials, supplies, or services provided to the Contractor in connection with the Contractor's performance of the contract; and
  - (b) From any and all claims for injuries to or death of any and all persons, for loss of or damage to property, for environmental damage, degradation and response, and cleanup costs, and for attorney fees and related costs arising out of, under, or by reason of the Contractor's performance of the contract.
  - (c) From any and all claims for injuries to or death of any and all persons or any damage to property claimed under any provision of the Michigan No Fault Act including, but not limited to personal protection insurance benefits, property damage, and/or "third party" negligence claims under MCL 500.3135 and for any attorney fees or related costs thereof.

CATA will not be subject to any obligations or liabilities by Subcontractors of the Contractor or their Subcontractors or any other person not a party to this contract without its specific consent and notwithstanding its concurrence in or approval of the award of any contract or subcontract or the solicitation thereof.

20. **ACCEPTANCE OF MATERIAL - NO RELEASE.** Unless CATA otherwise agrees in writing, acceptance of any portion of the material prior to final acceptance shall not release the Contractor from liability for faulty workmanship or materials or for failure to fully comply with all of the terms of this contract. CATA reserves the right and shall be at liberty to inspect all materials and workmanship at any time during the manufacturing process, and shall have the right to reject all materials and workmanship which do not conform with the contract requirements and specifications; provided, however, that CATA is under no duty to make such inspection and no inspection so made shall relieve Contractor from any obligation to furnish materials and workmanship in accordance with the contract requirements and specifications.
21. **FINAL ACCEPTANCE.** Upon final acceptance by CATA of all work to be performed by the Contractor, CATA will so notify the Contractor in writing. The date of final acceptance shall commence the warranty period.
22. **LIQUIDATED DAMAGES.** If the Contractor fails to deliver the requirements by the date as set forth in the bid documents scheduled for delivery, CATA shall be paid damages for each consecutive calendar day thereafter until the goods are delivered, unless a completion date is extended by CATA in writing. Liquidated damages and applicable penalties will be assessed against the Contractor as described in the scope of work, Section 16.
23. **NO ASSIGNMENT OF CONTRACT.** Contractor may not assign or transfer any interest in the contract without the prior written consent of CATA.

- 24. **DEFECTIVE WORKMANSHIP AND MATERIAL.** When and as often as CATA determines that the work done or being done under the contract or the kind of quality or materials supplied in connection therewith are not fully and completely in accordance with any requirement of the contract documents, it may give notice of such noncompliance to the Contractor in writing and the Contractor shall immediately upon receipt of such notice do all things required to remedy such noncompliance without additional cost to CATA. If the Contractor fails to comply with such written notice, then CATA, upon written notice to the Contractor, shall deduct the cost of repair, replacement or correction of defective or damaged work from the compensation due or to become due to the Contractor.
- 25. **WAIVER OF BREACH.** The waiver by either party hereto or any breach of any provision of this contract by the other party shall not operate or be construed as a waiver of any subsequent breach of the same or any other provision of this contract by either party hereto.
- 26. **OWNERSHIP OF DOCUMENTS.** All original documents, calculations, and work product produced by CONTRACTOR, whether produced on paper or electronic media or otherwise in performance of this Agreement, shall be the property of CATA. CONTRACTOR shall have the right to retain a copy of such documents, calculations, and work product. CONTRACTOR shall make available to CATA copies of all CONTRACTOR correspondence, notes, and other papers relating to the work, upon request of CATA. All works of original authorship created in the scope of this Agreement are "works made for hire", as that term is used in connection with the U.S. Copyright Act. To the extent that by operation of law CONTRACTOR retains any intellectual property rights to any work product, CONTRACTOR hereby irrevocably assigns and licenses to CATA all right, title, and interest in such work product, including copyrights and patents, and agrees to execute such assignments and licenses as may be required in the opinion of CATA's legal counsel to confirm this provision. The work product produced by CONTRACTOR in the performance of services under this Agreement is intended for use by CATA solely for the purpose intended. Any use or reuse of such work product by CATA for any purpose other than its intended purpose shall be at the sole risk of CATA and without any liability or responsibility of CONTRACTOR. To the extent that the work product produced by CONTRACTOR contains standard design or construction details or other standardized material previously developed by CONTRACTOR in its professional architectural, engineering, and planning practices, then CONTRACTOR shall have the right to reuse any such material on other projects for other clients or persons without the prior knowledge or permission of CATA and without the payment of any compensation to CATA, provided that the reuse or continued use of such material contains no CATA identifying information or confidential information.
- 27. **EXCUSES FOR FAILURE TO PERFORM OR DELAYS.** The Contractor will not be in default by reason of any failure in the performance of this contract, if such failure arises out of causes beyond the control and without the fault or negligence of Contractor. Such causes may include, but are not limited to, acts of God or the public enemy, acts of the government either in its sovereign or contractual capacity, fires, floods, and strikes. But in every case, a failure to perform must be beyond the control and without the fault or negligence of the Contractor or its Subcontractors. An excusable delay will permit the Contractor an extension of time for such reasonable period as may be mutually agreed upon between the parties.
- 28. **COMPUTATION OF TIME.** In computing a period of time prescribed by these conditions, the following rules apply:
  - (a) "Day" means days of the week (e.g., Monday through Friday), not business days.
  - (b) The day of the act or event after which the designated period of time begins is not included.
  - (c) The last day of the period is included, unless it is a Saturday, Sunday, or legal holiday. In that event, the period runs until the end of the next day that is not a Saturday, Sunday or legal holiday.
- 29. **NOTICE.** All notices and other communications required under this Contract shall be given in writing, signed by an authorized representative, and be personally delivered or delivered by overnight courier, or certified mail (return receipt requested) to the addresses set forth below:

To CATA: Chief Executive Officer  
Capital Area Transportation Authority  
4615 Tranter Street  
Lansing, MI 48910

To Contractor: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

With a copy to: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 30. **JURISDICTION.** This Contract will be governed by the internal laws of the State of Michigan without reference to its choice of law rules. Exclusive jurisdiction and venue of any suit, action or claim relating to this contract will be in the Ingham County Circuit Court or the Federal District Court for the Western District of Michigan.
- 31. This contract constitutes the entire contract between the parties and supercedes all negotiations, commitments, and previous contracts and may be modified only by a further written contract which is executed by a duly authorized officer of each of the parties.
- 32. **COST COMPUTATION.** The Federal Acquisition Regulation, 48 CFR, Chapter 1, Part 31.2, shall be used, in all instances, to determine the amount of costs incurred by Contractor that CATA shall be required to pay, or reimburse, to Contractor, including, without limitation, where this Agreement

requires CATA to pay Contractor's costs as part of the contract price, where the contract price is adjusted resulting from changes to the requirements of Agreement, and when calculating the amount due Contractor pursuant to Termination for Convenience clause.

33. TRAVEL EXPENSES. CATA shall not reimburse Contractor for travel costs, including accommodations, meals, transportation and fuel costs, unless the travel activity and the travel costs have been approved in advance by an authorized representative of CATA. All travel costs to be paid by CATA shall not exceed amounts determined in conformance with the Federal Acquisition Regulation, 48 CFR Section 31.205-46, Travel Costs.

B. TERMS INCLUDED IN CONTRACTS FUNDED IN WHOLE OR PART BY FTA, MDOT, OR OTHER GOVERNMENTAL AGENCY.

1. NONDISCRIMINATION.

- (a) Compliance with Regulations. Contractor shall comply with Federal Regulations relative to nondiscrimination of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, and Title 23, Code of Federal Regulations, Part 710.405(b), as they may be amended from time to time (hereinafter referred to as the Regulations), and with Executive Order 11246 titled Equal Employment opportunity, as amended by Executive Order 11375, and as supplemented by Department of Labor Regulation (41 CFR 60) which are herein incorporated by reference and made a part of this contract. Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.
- (b) Nondiscrimination. With regard to the work performed by it during this contract, Contractor shall not discriminate on the grounds of race, color, sex, disability, religion, age, or national origin against any employee or applicant for employment, or in the selection and retention of Subcontractors, including procurement of materials and leases of equipment. Contractor shall not participate either directly or indirectly in discrimination prohibited by Section 21.5 and Part 710.405(b) of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- (c) In connection with the performance of services under this contract, Contractor agrees to comply with the State of Michigan provisions for "prohibition of discrimination in state contracts" as set forth in Appendix A dated March 19, 1998, a copy of which is attached hereto and made a part hereof.
- (d) ADA Access. All work performed and all services provided pursuant to this contract shall be in compliance with Federal policy to ensure that elderly individuals and individuals with disabilities have an equal right to use of public transportation services and facilities. To the extent this Contract requires planning and design of services and facilities, special efforts shall be made to implement the transportation and accessibility rights of elderly individuals and individuals with disabilities. The work performed and services provided in this Contract shall be in compliance with all State and Federal statutes and laws ensuring equal access of transportation services and facilities for the elderly and individuals with disabilities, including 49 U.S.C. § 5301(d), § 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, The Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 *et seq.*, and the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 *et seq.*, and any applicable implementing Federal regulations or directives as they may from time to time be promulgated or amended.
- (e) This provision B.1 (a)-(e) will be included in all subcontracts relating to this contract. Further, each contract which Contractor signs with a Subcontractor must include the following assurance:

The Contractor, Subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, creed, disability, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

2. DBE REQUIREMENTS.

- (a) Contractor will carry out the applicable requirements of the Michigan Department of Transportation's Disadvantaged Business Enterprise ("DBE") program and 49 CFR 26, including, but not limited to those requirements set forth in Appendix B, attached hereto and made a part hereof. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as CATA deems appropriate, which may include, but is not limited to, withholding monthly progress payments, assessing sanctions, liquidated damages and/or disqualifying the Contractor from future bidding as non-responsible.
- (b) Contractor shall pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than thirty (30) days after the Contractor's receipt of payment for that work from CATA. In addition, Contractor shall return any retainage payments to those subcontractors within thirty (30) days after the subcontractor's work related to this contract is satisfactorily completed. Contractor must promptly notify CATA whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete the work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of CATA.

3. CONTINGENT FEES. The Contractor warrants that it has not employed or retained any company or person, other than a bonafide employee working solely for the Contractor, to solicit or secure this contract and that it has not paid or agreed to pay any company or person, other than a bonafide employee working solely for the Contractor, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, CATA shall have the right to annul this contract without liability.

4. **RECORDS/AUDITS.** The Contractor shall maintain and retain, and shall require all its subcontractors to maintain and retain, complete and accurate books, documents, papers, accounting records, contracts, and other evidence with respect to allowable costs incurred and manpower expended under this contract. All such records shall be maintained on the basis of generally-accepted accounting principles and shall be clearly identified and readily accessible. The Contractor shall provide during regular business hours to the U.S. Secretary of Transportation, the FTA Administrator, the Comptroller General of the United States, and CATA, or their duly authorized representatives, access to such data and records, and the right to inspect and audit all data and records of the Contractor relating to its performance under the contract, and to make transcripts therefrom as necessary. Contractor shall retain all work data, documents, records, accounts and reports related to this contract for a period of three (3) years from the date of final payment under this contract or from expiration or other termination of this contract. In the event of a dispute as to allowable costs or any other issue under this contract, Contractor will thereafter continue to maintain such records until the dispute has been resolved.
5. **CONFLICT OF INTEREST.** The Contractor certifies that, to the best of its knowledge, no CATA employee or office of any public agency interested in this contract has any pecuniary interest in the business of the Contractor and that no person associated with the Contractor has any interest that would conflict in any manner or degree with the performance of this contract.
6. **INTEREST OF MEMBER OF CONGRESS OR DELEGATES TO CONGRESS.** No member of Congress or delegates to the Congress of the United States shall be admitted to any share or part of the contract, or to any benefit arising therefrom. This shall not be construed to prevent any such person from owning stock in a publicly owned corporation.
7. **DEBARMENT AND SUSPENSION.** Contractor must comply with U.S. DOT regulations "Nonprocurement Suspension and Debarment", 2 CFR Part 1200, which adopt and supplement the U.S. Office of Management and Budget ("U.S. OMB") "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 CFR Part 180. Contractor will not make any contract, subcontract, or lease for the project without first confirming that its proposed contractor, subcontractor, or lessee is not listed as barred or excluded from participating in government contracts in the System for Award Management (SAM) at [www.sam.gov](http://www.sam.gov).

Contractor agrees to comply with federal debarment and suspension regulations and guidelines when administering any contract or subcontract of \$25,000 or more, regardless of tier. A contract or subcontract award may not be made to a prospective contractor or subcontractor if that contractor is excluded or disqualified under the standards of the U.S. DOT regulations in the U.S. OMB Guidelines, unless the federal government has provided an exception as permitted under those regulations and guidelines. In addition, contracts of any amount for federally required audit services or for contracts which require the consent of a federal official are also covered by these DOT regulations and U.S. OMB Guidelines. Contractor must obtain the compliance of lower tier contractors, subcontractors, and lessees with the U.S. DOT debarment and suspension regulations and the U.S. OMB Guidelines that apply to them. The Contractor further agrees to include provisions requiring compliance as set forth above in lower tier covered transactions.

8. **MDOT AND FTA TERMS.** All contractual provisions that the Michigan Department of Transportation ("MDOT") or the Federal Transit Administration ("FTA"), by law or regulation, require to be included in contracts supported by state or federal financial assistance, including the requirements set forth in FTA Circular 4220.1F, as updated and amended, and the Master Agreement between CATA and FTA as it may be amended, are hereby incorporated by reference. FTA required terms and MDOT required terms shall be deemed to control in the event of a conflict with other provisions contained in this contract. Contractor shall not refuse to comply with any CATA request to conform this contract to include MDOT or FTA required contractual provisions. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any CATA requests which would cause CATA to be in violation of the FTA mandated contractual provisions.
9. **COMPLIANCE WITH LAWS.** The Contractor shall at all times observe and comply with all laws, ordinances, and regulations of the state, federal, local, and city government which may, in any manner, affect the performance of the contract.
10. **CLEAN AIR.** The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* If state or local air pollution regulations are in force, the more restrictive criteria shall govern. The Contractor and any subcontractors or suppliers must submit evidence to CATA that the governing air pollution criteria will be met. The Contractor agrees to report each violation to CATA and understands and agrees that CATA will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.
11. **BUY AMERICA PROVISIONS.** N/A
12. **CERTIFICATION REGARDING LOBBYING.** This procurement is subject to the Federal Transportation Administration Lobbying requirements. The attached certificate, entitled Certificate Regarding Lobbying (Appendix C), must be signed and returned as a term and condition of this Agreement and its terms are incorporated by reference herein.
13. **PREVAILING WAGE.** N/A
14. **BID BOND.** N/A
15. **PROTESTS.** Any protests shall be filed timely in accordance with the CATA Procurement Protest Procedures. These Procedures are available from the CATA Purchasing & Contracts Manager and the CATA CEO/Executive Director, at the following address: Capital Area Transportation Authority, 4615 Tranter Street, Lansing, MI 48910.
16. **PERFORMANCE & PAYMENT BONDS.** N/A
17. **FEDERAL CHANGES.** Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between CATA and FTA, as they may be amended or promulgated from time

to time during the term of this contract. Contractor shall not, by action or by inaction, cause CATA to be in violation of FTA regulations, policies, procedures, or directives. Contractor's failure to comply with this paragraph shall constitute a material breach of this contract.

18. NO GOVERNMENT OBLIGATION. Notwithstanding any concurrence by the Federal Government or MDOT in, or approval of, the solicitation or award of this Agreement, absent the express written consent by the Federal Government or by MDOT, neither the Federal Government nor the State of Michigan is a party to this Agreement, and neither shall be subject to any obligations or liabilities to CATA, the Contractor or any other party (whether or not a party to this Agreement) pertaining to any matter resulting from this Agreement. The Contractor agrees to include this clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.
19. CLEAN WATER. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 *et seq.* The Contractor agrees to report each violation to CATA and understands and agrees that CATA will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.
20. ENERGY CONSERVATION. The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.
21. RECOVERED MATERIALS. N/A
22. FLY AMERICA REQUIREMENTS. Contractor agrees to comply with 49 U.S.C. 40118 ("Fly America Act") in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of federal funds and their contractors are required to use United States Flag air carriers for U.S. Government financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a United States Flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.
23. CARGO PREFERENCE. N/A
24. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS.
  - (a) The Contractor acknowledges that the provisions of the Program Fraud Civil Rights Act of 1986, as amended, 31 U.S.C. § 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, or may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
  - (b) The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under authority of 49 U.S.C. § 5307, the Federal Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, or the applicable Federal law to the extent the Federal Government deems appropriate.
  - (c) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.
25. SAFE OPERATIONS OF MOTOR VEHICLES
  - (a) Seat Belt Use – Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or CATA.
  - (b) Distracted Driving – Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer and driving a vehicle the driver owns or rents, a vehicle either Contractor or CATA owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

## APPENDIX B

### PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS

In connection with the performance of work under this contract, Contractor agrees as follows:

1. In accordance with Act 453, Public Acts of 1976, Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or as a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980, Contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants shall be regarded as a material breach of this contract.
2. Contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, shall contain a covenant the same as hereinabove set forth in Section 1 of this Appendix.
3. Contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
4. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.
5. Contractor or its collective bargaining representative will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this appendix.
6. Contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.
7. Contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor as well as Contractor itself, and said Contractor will permit access to its books, records, and accounts by the Michigan Civil Rights Commission and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, and orders of the Michigan Civil Rights Commission.
8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that Contractor has not complied with the contractual obligations under this Agreement, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated and/or declare Contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until Contractor complies with said order of the Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom Contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency shall be notified of such possible remedy and shall be given the option by the Civil Rights Commission to participate in such proceedings.
9. Contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

## APPENDIX C

### **ASSURANCES THAT CONTRACTORS AND SUBCONTRACTORS MUST MAKE PURSUANT TO US DOT REGULATION 49 CFR § 26, et seq**

1. Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex, in the performance of this contract. Contractor shall carry out applicable requirements of 49 CFR § 26 in the award and administration of DOT-assisted contracts. Failure of the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
  1. Withholding monthly progress payments;
  2. Assessing sanctions;
  3. Liquidated damages; and/or
  4. Disqualifying the Contractor from further bidding as non-responsible.
  
2. Each contract Contractor signs with a subcontractor must include the preceding assurance.

## APPENDIX D

### CERTIFICATE REGARDING LOBBYING

#### CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS (To be submitted with each bid or offer exceeding \$100,000).

The undersigned Contractor certifies to the best of his or her knowledge and belief that:

1. No federal appropriated funds have been paid or will be paid by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, Disclosure Form to Report Lobbying, in accordance with its instructions (as amended by "Government Wide Guidance for New Restrictions on Lobbying", 61 Fed. Reg. 1413 (11/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. § 1601, et seq.).
3. The undersigned shall require that the language of this Certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This Certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this Certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required Certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required Certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Contractor, \_\_\_\_\_ certifies or affirms to the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name & Title of Contractor's Authorized Official

\_\_\_\_\_  
Date

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## APPENDIX E

### CATA Board Policy No. 204

#### DISADVANTAGED BUSINESS ENTERPRISE POLICY

The Capital Area Transportation Authority (CATA) has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26. CATA has received Federal financial assistance from the Department of Transportation, and as a condition of receiving this assistance, CATA has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of CATA to ensure that DBEs are defined in part 26, have an equal opportunity to receive and participate in DOT-assisted contracts. It is also our policy:

1. To ensure nondiscrimination in the award and administration of DOT - assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for DOT - assisted contracts;
3. To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
5. To help remove barriers to the participation of DBEs in DOT-assisted contracts;
6. To assist the development of firms that can compete successfully in the market place outside the DBE Program.

The Purchasing and Contracts Manager has been delegated as the DBE Liaison Officer. In that capacity, the Purchasing and Contracts Manager is responsible for implementing all aspects of the DBE program. Implementation of the DBE program is accorded the same priority as compliance with all other legal obligations incurred by CATA in its financial assistance agreements with the Department of Transportation.

CATA has disseminated this policy statement to the Board of Directors and all of the components of our organization. We have distributed this statement to DBE and non-DBE business communities that perform work for us on DOT-assisted contracts. CATA will give public notice of DBE goals, how the goals were determined, and contact information for public comment.

Adopted: 04/20/2022

## APPENDIX F

### IRAN ECONOMIC SANCTIONS ACT CERTIFICATE

In accordance with the Iran Economic Sanctions Act, Michigan 2012 PA 517, effective April 1, 2013, (MCL 129.311, *et seq.*), the undersigned certifies in support of its bid or proposal that it is not an Iran linked business as such is defined in the Act.

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## APPENDIX G

### CERTIFICATION OF PRIMARY CONTRACTOR REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

The Primary Contractor, \_\_\_\_\_, certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three (3) year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offense enumerated in paragraph (2) of this certification; and
4. Have not within a three (3) year period preceding this application/proposal had one (1) or more public transactions (Federal, State, or Local) terminated for cause or default.

If the above named Primary Contractor is unable to certify to any of the statements in this certification, the Primary Contractor shall attach an explanation to this certification.

The Primary Contractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provision of 31 U.S.C. Section 3801 et seq. are applicable thereto.

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## APPENDIX H

### CERTIFICATION OF LOWER-TIER PARTICIPANTS (SUB-CONTRACTORS) REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

#### **Debarment and Suspension Certification (Lower-Tier Covered Transaction)**

This form is to be submitted by each Subcontractor receiving an amount exceeding \$25,000.

The prospective lower-tier participant (Proposer) certifies, by submission of this Proposal, that neither it nor its "principals" as defined at 49 CFR § 29.105(p) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

If the prospective Proposer is unable to certify to the statement above, it shall attach an explanation, and indicate that it has done so by placing an "X" in the following space: \_\_\_\_\_

**THE PROPOSER, \_\_\_\_\_, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND EXPLANATION, IF ANY. IN ADDITION, THE PROPOSER UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 USC §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND EXPLANATION, IF ANY.**

**Name and title of the Proposer's authorized official:**

\_\_\_\_\_  
Authorized signature

\_\_\_\_\_  
Date

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## **ATTACHMENTS**

Attachment A: Submittal Checklist Form

Attachment B: Supplier Information Form

Attachment C: Reference Form

Attachment D: Pricing Form

Attachment E: Vehicle Maintenance Plan

Attachment F: Vehicle Replacement Plan

# ATTACHMENT A

## SUBMITTAL CHECKLIST FORM

All forms/certifications below **MUST** be completed and included when you submit your proposal. Failure to submit the requested documents could result in determining the submission as non-responsive and rejected.

---

- Three (3) copies with one (1) electronic copy of the proposal package
- Signed and complete Lobbying Certificate
- Signed and completed Iran Economic Sanctions Act Certificate
- Signed and completed Certification of Primary Contractor Regarding Debarment & Suspension
- Signed and completed Certification of Lower-Tier Participants (Sub-contractors) Regarding Debarment & Suspension
- Signed and completed Submittal Checklist Form
- Signed and completed Supplier Information Form
- Signed and completed Reference Form
- Signed and completed Pricing Form
- Certificate of Insurance
- Signed and completed Amendment(s) (as issued)

**Please Note:** This bid package and any amendments are available at [www.cata.org](http://www.cata.org). Please continue checking the website for any updates or amendments.

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## ATTACHMENT B

### SUPPLIER INFORMATION FORM

**Instructions:** This form is to be completed and included in the Proposal submittal.  
Attach additional pages if required.

CATA RFP No. 2022-133, Paratransit Demand Response Services

1. Name of firm: \_\_\_\_\_

2. Address: \_\_\_\_\_

3.  Individual  Partnership  Corporation  Joint Venture

4. Date organized: \_\_\_\_\_

State in which incorporated: \_\_\_\_\_

5. Names of officers or partners:

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

6. How long has your firm been in business under its present name?

7. Have you been terminated or defaulted in the past five years; on any Contract you were awarded? Have you been barred by Federal process or any State? Has your firm ever defaulted on a performance bond?  
 Yes  No If YES, then attach as **SCHEDULE ONE** the full particulars regarding each occurrence.

8. Have you ever failed to complete, in the past five (5) years, any contract on which you were selected?  
 Yes  No If YES, then attach as **SCHEDULE TWO** the full particulars regarding each occurrence.

9. Have you had any litigation within the previous 5 years involving any current or former projects with clients or government agencies?  
 Yes  No If YES, then attach as **SCHEDULE THREE** the findings of any litigation including the status of each case.

The undersigned certifies to the accuracy of all information:

Name and title: \_\_\_\_\_

Company: \_\_\_\_\_

Authorized signature

Date

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## ATTACHMENT C

### REFERENCE FORM

Provide a minimum of three (3) references for which proposer has delivered goods and/or services similar to the scope as described in the RFP. Please print LEGIBLY. Before adding information below be certain the information given to us is CURRENT and CORRECT.

Reference 1
Company Name:
Complete Address:
Contact Name and Title:
Phone:
Email:
Contract Amount:
Percentage of Completion:
Description of Work:

Reference 2
Company Name:
Complete Address:
Contact Name and Title:
Phone:
Email:
Contract Amount:
Percentage of Completion:
Description of Work:

<b>Reference 3</b>
Company Name:
Complete Address:
Contact Name and Title:
Phone:
Email:
Contract Amount:
Percentage of Completion:
Description of Work:

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

# ATTACHMENT D

## PRICING FORM

### COST BASIS FOR PRICE PROPOSAL

RESPONDENT: \_\_\_\_\_

CATA RFP # \_\_\_\_\_ RFP TITLE: \_\_\_\_\_

<b><u>WAGES</u></b>	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>
Driver Wages	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Payroll Tax	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Fringe Benefits	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Worker's Comp.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Staff Wages	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Payroll Tax	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Fringe Benefits	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Worker's Comp.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Mechanic Wages	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Payroll Tax	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Fringe Benefits	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Worker's Comp.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other (Specify)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Payroll Tax	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Fringe Benefits	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Worker's Comp.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>TOTAL WAGES</b>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

### **OPERATIONAL COSTS**

Insurance	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
-----------	----------	----------	----------	----------	----------

Fuel Cost	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Maintenance Costs – Parts & Supplies	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other (Specify)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other (Specify)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>TOTAL OPERATIONAL COSTS</b>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b><u>GENERAL</u></b>	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>
Start-Up	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Facilities Charges	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other (Specify)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b><u>OVERHEAD</u></b>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Percentage	_____ %	_____ %	_____ %	_____ %	_____ %
<b><u>PROFIT</u></b>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>TOTAL COST</b>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

**PRICE PROPOSAL FORM**

The undersigned, having familiarized itself with the Scope of Work and conditions affecting the cost of the work described in the RFP, hereby proposes to perform everything required to perform and complete in a workmanlike manner, all work for the prices listed below, it being understood that the prices set out constitute full payment for the specified work and for every risk, hazard, or condition encountered which may be different from what was indicated, expected, or anticipated.

**Price Proposal**

**(a) ADA Complementary Spec-Tran Services** – Includes managing, operating and servicing the CATA Spec-Tran Service.

Vehicle Service Hour Rate

- Year one           \$ \_\_\_\_\_
- Year two           \$ \_\_\_\_\_
- Year three         \$ \_\_\_\_\_
- Year four          \$ \_\_\_\_\_
- Year five          \$ \_\_\_\_\_

**(b) Supplemental Services for Rural Areas** – Includes managing, operating and servicing CATA Supplemental Services.

Vehicle Service Hour Rate

- Year one           \$ \_\_\_\_\_
- Year two           \$ \_\_\_\_\_
- Year three         \$ \_\_\_\_\_
- Year four          \$ \_\_\_\_\_
- Year five          \$ \_\_\_\_\_

The **vehicle service hour\*** should include all costs that will be related to the operation of one vehicle for one hour. This will include, at minimum, the driver wages and fringe benefits, the cost for scheduling and dispatching, the cost of maintenance, supplies, and materials for maintaining vehicles, general maintenance of the operations facility including utilities, the cost of the system management for day-to-day operation: including the company's overhead, contingency and profit.

a. Any other charges (Specify and provide for yearly increases, if any)

- 1. \$ \_\_\_\_\_  
\_\_\_\_\_
- 2. \$ \_\_\_\_\_  
\_\_\_\_\_
- 3. \$ \_\_\_\_\_  
\_\_\_\_\_

b. Any requirements for price adjustment. (Specify)

- 1. \$ \_\_\_\_\_  
\_\_\_\_\_
- 2. \$ \_\_\_\_\_  
\_\_\_\_\_
- 3. \$ \_\_\_\_\_  
\_\_\_\_\_

It is agreed that this Proposal may not be withdrawn for a period of One Hundred Eighty (180) days.

If awarded the Contract, the undersigned agrees to enter into a written contract to perform the work.

Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL.**

## ATTACHMENT E

### VEHICLE MAINTENANCE PLAN

#### I. Training

Contractor will be required to ensure their mechanic staff is at proper levels to maintain CATA vehicles. Contractor will be required to provide documentation of any relevant employee certification and continuing education upon CATA's request. CATA must be notified when staffing levels fall below proper levels.

#### II. Preventative Maintenance

The preventative maintenance system consists of minor (A and B) inspections and a major (C) inspection. The PM inspections are also specific to each vehicle type with major component variations (i.e. hybrid powered). A minor (A) inspection is performed every 3,000 for small buses and light duty cars and trucks under 7,000 lbs. gross vehicle weight and at 5,000 miles for vehicles over 7,000 lbs. gross vehicle weight. The minor (B) inspection is performed at every 15,000 miles or in lieu of every third "A" inspection. The major inspection (C) is performed on vehicles over 7,000 lbs. gross vehicle weight, at 60,000 miles. To meet required service demands in the heavy-duty bus fleet these intervals can be extended at CATA's discretion. This is based on manufacturers recommendations, use of synthetic oils, with continued monitoring of oil analysis reports to ensure the components remain in top operating condition. This is a continuous cycle running for the life of the vehicle. The minor (A and B) inspection consists of the following:

- A. A complete check of the interior of the vehicle, including dash gages, interior lamps, seats safety equipment, proper operation of the doors including interlock features, horn, wipers and washers, parking brake, emergency braking system (SR-1), passenger chimes, destination sign, heat, defroster, A/C, window latches including emergency exit operation, hatches, stanchions, grab rails, floor covering, wheelchair lift operation including all safety feature operation, and accelerator and brake pedal operation.
- B. A complete inspection of the undercarriage including the draining of the air tanks in proper sequence, inspection and adjustment of the brakes, lubrication of the chassis, inspection of tires for proper tread depth and inflation, inspection of the differential fluid level and vent, cleaning/replacement of climate control filters, inspection of the exhaust system, engine and transmission including mounts and securements, cooling system, belts, fan drives, radiator, inspection of the steering components, suspension, wheel seals, all air and fluid lines, fuel tank and structure. The wheelchair lifts are run through the operational cycle, cleaned, lubricated and all safety switches are inspected for proper operation.
- C. Draining and replacing of the engine oil and filters, changing the transmission filter, inspection of all engine compartment lines, hoses and clamps, inspection of the air intake system hoses, clamps, and filter.
- D. Fuel filters are replaced at every PM interval. At every inspection oil samples are taken and sent in for analysis. The results are returned noting the condition of the engine. If deficiencies are noted scheduled repairs are made to correct the problem.
- E. A complete inspection of the exterior of the bus is performed. All exterior lamps are inspected for operation, all hinges and latches are lubricated and inspected, radiator is cleaned, engine is power washed prior to a road test to assist in finding leaks, batteries are inspected and cleaned, Voltage drop tests are performed between the battery and charging system, all wheel and nuts are inspected, all body panels are inspected.
- F. Complete inspection and service of air conditioning system.
- G. Vehicle is road tested.

The "B" minor inspection includes the operation performed in the "A" inspection with the following additions:

- Transmission fluid is replaced
- Air Dryer is replaced/rebuilt
- Power steering filters are replaced.

- Engine mounted fuel filters are replaced

The "C" major inspection includes all the inspections of the "A" and "B" inspections including the following:

- Replacement of the differential fluid.
- Power steering fluid is replaced.
- Hybrid power unit fluid is replaced

Major repairs are performed by Mechanics. All of the noted defects are reviewed and repaired by Mechanics prior to the vehicle being returned to revenue service. The quality of the inspection and repairs are checked by the Maintenance Director.

The Maintenance Director will manually check mileage between inspection intervals.

CATA will perform weekly inspections, throughout each year, on contracted vehicles. CATA will send a completed inspection form showing any defects noted. CATA must receive a completed work order matching the vehicle and repairs.

### III. Vehicle PM Scheduling:

CATA utilizes several methods and measures to establish preventative maintenance intervals. The established intervals consider the following measures and recommendations:

- Manufacturer's recommendation
- Oil analysis report review
- Operating environment
- Vehicle mileage and age
- Engine types
- Warranty requirements
- After treatment service requirements
- Service demand
- Testing new oil products

CATA will determine types of fluids used. (i.e., Engine oil, transmission oil)

The key elements are manufacturers recommendations, operating environment, and oil analysis review. The goal is to balance the interval to maximize vehicle performance, life cycle and reliability and to meet all service demands. Oil analysis reports are monitored weekly by the Director of Maintenance. Key areas of review include silica ingestion, coolant contamination, fuel dilution, metal compounds and viscosity changes. A total oil analysis history is maintained on each vehicle. Deviations to normal results are relayed to the shift supervisors for follow up and correction. If long term consistent variations are present, changes in the PM intervals are discussed with the supervision staff to address the variation and changes to the PM interval are made as required to meet our goal. All oil analysis reports will be sent to CATA on a monthly basis.

Vehicle preventative maintenance scheduling is accomplished utilizing Maintenance monitoring software and is vehicle mileage driven. This software has several features that assist in monitoring overall vehicle maintenance history. Some of the features included in the software are parts usage, employee labor, vehicle repair history and vehicle fluid usage. Additionally, the program is designed and used to set the schedule and notification for all vehicle preventative maintenance inspections.

Preventative maintenance mileage parameters should be kept in the maintenance software to adhere to CATA's prescribed preventative maintenance goals set in the maintenance plan. The inspection parameters are derived from the key areas noted.

Vehicle mileage is compiled daily and entered into the program. The maintenance program then updates the overall vehicle mileage which includes the preventative maintenance parameters.

To provide advance notice of the pending inspection, the system is set to provide prior notification when the vehicle is within a 1500-mile window of the pending inspection to insure we comply with our goals. The software displays a daily reminder screen noting all vehicles with PM work within this advance notice window. All of the scheduled inspections work orders are produced from this list daily. This process is applicable to all CATA directly operated vehicles. The maintenance program is monitored by the Maintenance Director (or appropriate supervisor in his absence) daily to ensure compliance. Each inspection assignment is accompanied by the oil analysis history. All completed inspections are monitored by the Maintenance Director, and the forms are all maintained electronically in a vehicle history file for reference.

PM schedule adherence must be sent every month. The reports must show early, on-time and late PM's.

#### **IV. General Repairs**

All repair activity performed by the Contractor is to be captured on computerized work orders. Documentation will be made available to CATA upon request. This includes the repair work on all CATA vehicles and equipment, including any work performed by an outside contractor.

A work order is generated for virtually every significant maintenance task and multiple tasks can be assigned to a single work order. Work orders are generated from five sources:

- For each vehicle inspection.
- For defects found during the PM inspection. All defects are compiled in a service request file and assigned to a work order for follow up repair.
- From driver's defect cards, which indicated a repair is required.
- Reports from the oil analysis program where deficiencies are noted on the report.
- All road calls necessitate a work order generation showing the cause and problem to be corrected.

#### **V. Contractor Operated Vehicles**

Vehicles operated under contract are subject to compliance to the CATA preventative maintenance scheduling as described in the CATA Vehicle Maintenance Plan ("CVMP"). Oversight and review of the maintenance of the contracted vehicles is the responsibility of the Director of Maintenance. The contractor is responsible for maintaining all vehicle repair and preventative maintenance records. All forms used by the contractor for preventative maintenance are subject to approval by CATA to insure they meet compliance with the CVMP. At a minimum, a monthly review of the vehicle preventative maintenance records is performed to ensure compliance. Should any deficiencies be found upon review of the records, a written report of the findings is submitted to the contractor for corrective action. All warranty related work is the responsibility of the contractor through the manufacture dealer network. All manufacturer and safety recall information issued through CATA for the contractor vehicles are provided to the contractor for the appropriate action.

A monthly road call log must be maintained and sent to CATA. At a minimum, the road call log will contain all information found on the CATA road call list.

A monthly report must be submitted to CATA showing all warranty parts a labor claimed on vehicles.

Electronic Equipment (AVL, APC, Radio, Announcement Systems)

All electronic equipment is maintained and repaired by the maintenance department. The equipment now installed in buses includes:

- APC - Automatic Passenger Counters
- AVL – Automatic Vehicle Location
- Radio – Two-way radio communication
- Route Announcement Systems
- Destinations Signs

The AVL equipment is maintained in coordination with CATA's IT (Information Technology) Department for onboard system operational software diagnosis issues. All software issues are maintained and corrected by the IT department with all hardware maintained and replaced by the Contractor.

APC sensors are checked and maintained by the Contractor. Operation of the route announcement systems requires a program provided from CATA's Service planning department and this program is automatically downloaded into the bus through a wireless transmission.

Destination sign programs are also developed in the Service Planning department and required downloads are provided to the maintenance staff and manually downloaded into the sign control through a memory card.

Destination signs that do not operate correctly are replaced by CATA maintenance employees.

The radio equipment currently is maintained through a contract with an outside vendor. The Contractor will install and remove radios from the vehicles but does not perform any internal repairs to the equipment.

Cutaway Vehicle Inspection Checklist		
Work Order Number: _____		
Equipment: _____		
License Plate: _____		
Task	Completed by Employee	Comments
PM INSPECTION SERVICES		
CHANGE ENGINE OIL AND FILTERS		
EXHAUST SYSTEM INSPECTION		
CHECK ENGINE AND CR ADLE MOUNTS		
ENGINE ON TRANS OIL ANTIFREEZE LEAKS		
DIFFERENTIAL OIL LEVEL		
PARKING BRAKE CONDITION		
DRIVE SHAFT AND U-JOINTS		
REAR AXLE U-BOLTS		
REAR SHOCKS AND BUSHINGS		
LEAF COIL SPRINGS		
CHECK BALL JOINTS		
CV BOOT CONDITION		
FRONT STRUTS SHOCKS		
MORE-RYDE BLOOBS		
REAR RAD DJS ROD BUSHINGS AND MOUNTS		
FUEL TANK AND LINES FOR LEAKS		
FUEL TANK MOUNTING		
MUD FLAPS		
I BEAAI BUSHINGS		
A-ARM BUSHINGS		
DRAG LINK TIE ROD RELAY ROD ENDS IDLER ARMS		
KING-PINS BALL JOINTS		
BRAKE WEAR FRONT AND REAR		
BRAKE LINES		
BRAKE RETARDER MOUNTS		
BRAKE RETARDER ROTORS MAGNETS		
WHEEL AXLE SEALS FOR LEAKS		
ADJUST TIRE PRESSURE NOTE ABNORMAL WEAR		
LUBE ALL COMPONENTS AS REQUIRED		
CHECK STEERING SHAFT U-JOINTS		
STABILIZER BAR BUSHINGS AND LINKS		
STEERING GEAR RACK CONDITION LEAKS		
HIGH VOLTAGE CABLES SECURED		
BRAKE OPERATION		
SPEEDOMETER AND GAUGE OPERATION		
STEERING FREE TRAVEL		
VEHICLE HANDLING		
TRANSMISSION SHIFT OPERATION		
ENGINE PERFORMANCE		
PARK BRAKE OPERATION		
BODY WINDOW RATTLES		
HEATER DEFROSTER-AC BLOWER OPERATION		
CHECK FOR LEAKS AFTER RETURN		
CHECK BRAKE RETARDER OPERATION		
HEADLIGHTS		
TURN SIGNALS 4WAYS		
MARKER AND CLEARANCE LIGHTS		
TAIL BRAKE LIGHTS		
LICENSE PLATE LIGHT		
BACK UP LIGHTS AND ALARM		
VINYL CONDITION		
GENERAL BODY CONDITION		
LUBE ALL EXTERIOR DOOR HINGES LATCHES		
INSPECT TIGHTEN ALL WHEEL AND AXLE NUTS		
CLEAN BATTERY AND CABLES		
CHECK; WINDSHIELD WIPERS BLADES ARMS WASHERS		
DOORS ADJUSTMENT SEALS CONDITION OPERATION		
BIKE RACK CONDITION AND OPERATION		
CHECK POWER STEERING FLUID LEVEL AND PUMP		
FILL WASHER TANK		
INSPECT ALL RADIATOR HOSE CLAMPS		
CHECK HOSES RUBBING CHAFFING		
FAN AC ALT BELTS CONDITION AND TENSION		
CONDITION OF INTAKE SYSTEM HOSES		
WIRE SECURED NOT RUBBING		
MASTER CYUNDER LEVEL		
AC CONDENSER CONDITION CHECK FAN OP. ON SKIRT		
ROOF MOTORS		
AC UNES		
HEATER HOSE UNES		
ENGINE OIL LEVEL CORRECT		
TRANSMISSION OIL LEVEL CORRECT		
BRAKE & ACCELERATOR PEDAL OPERATION LUBE BRAKE		
ROLLER		
HORN BUTTON OPERATION CONDITION		
WIPER WASHER OPERATION		
DIMMER TURN SIGNAL SWITCH OPERATION		
INSTRUMENT PANEL SWITCHES OPERATION		
DRIVER'S SEAT CONDITION OPERATION SEAT FRAMES AND COVERING CONDITION SEAT		
BELT OPERATION		
DOVE AND STEP LIGHT OPERATION WINDOWS; LATCH OPERATION GLASS CONDITION		
STANCHIONS AND GRAB RAILS; SECURE CONDITION MIRRORS REMOTE OPERATION		
CONDITION AND TIGHTEN EMERGENCY HATCH OPERATION		
SAFETY EQUIPMENT REGISTRATION INSURANCE AND MESS		
KIT		
FLOOR COVERING CONDITION		
W C BELTS CONDITION OPERATION CLEAN AND LUBE FLOOR LATCHES		
W C UFT OPERATION W C RESERVOIR LEVEL		
DESTINATION SIGN OPERATION FAREBOX INSPECTION		

**PM Checklist Items for Work Order Number**

PM service(s): 40D PM-A

Work Order Number:	WO Status:	Work Order Delay:	None
Asset: 402 - 2020 GILLIG G27B102 35FT LFR			License:
Task	Completed by Employee	N/A	Failed SR Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM: No</b>	
PMCUC001 - CHANGE ENGINE OIL AND FILTERS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC002 - INSPECT ENGINE MOUNTS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC003 - CHECK COOLING FAN		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC005 - OIL WATER AIR LINES FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC006 - TRANSMISSION LINES CONDITION LEAKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC007 - DIFFERENTIAL OIL LEVEL		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC008 - DRIVE SHAFT AND U-JOINTS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC009 - REAR AXLE U-BOLTS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC010 - REAR SHOCKS AND BUSHINGS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC011 - REAR BELLOWS AND PISTONS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC012 - REAR RADIUS ROD BUSHINGS AND MOUNTS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC013 - CHECK REAR BRAKE ADJ		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC014 - REAR BRAKE CHAMBER PARKING BRAKE SPRING		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC015 - FUEL TANK AND LINES FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC016 - MUD FLAPS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC017 - FRONT RADIUS ROD BUSHINGS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC018 - FRONT BELLOW BELLOW MOUNT AND PISTON		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC019 - CHECK FRONT BRAKE ADJ		<input type="checkbox"/>	<input type="checkbox"/>

PM/Inspection Service 40D PM-A continues on next page...

**PM Checklist Items for Work Order Number CATA-2022-1757**

Work Order Number:	WO Status:	Work Order Delay:	None
Asset: 402 - 2020 GILLIG G27B102 35FT LFR			License:
Task	Completed by Employee	N/A	Failed SR Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM: No</b>	
PMCUC020 - DRAG LINK TIE ROD RELAY ROD ENDS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC021 - KING PINS CHECK MOVEMENT		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC022 - CHECK STEERING SHAFT U-JOINTS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC023 - WHEEL SEALS FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC024 - CHECK TIRE PRESSURE AND NOTE WEAR		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC025 - LUBE ALL COMPONENTS AS REQUIRED		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC026 - CHECK SR-1 VALVE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC027 - DRAIN AIR TANKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC028 - BRAKE PRESSURE TEST		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC029 - LEVELING VALVES AND LINKS		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC030 - RIDE HEIGHT		<input type="checkbox"/>	<input type="checkbox"/>
PMCUC031 - CHECK AIR DRYER OPERATION REBUILD		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT002 - BRAKE RETARDER OPERATION		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT003 - SPEEDOMETER AND GAUGE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT004 - BACK-UP ALARM OPERATION		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT005 - STEERING FREE TRAVEL		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT006 - COACH HANDLING		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT007 - TRANSMISSION SHIFT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT008 - ENGINE PERFORMANCE SMOKING		<input type="checkbox"/>	<input type="checkbox"/>
PMCRT009 - PARK BRAKE ADJUSTMENT TUG TEST		<input type="checkbox"/>	<input type="checkbox"/>

PM/Inspection Service 40D PM-A continues on next page...

**PM Checklist Items for Work Order Number CATA-2022-1757**

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
		License:			
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM:</b>		<b>No</b>	
PMCRT010 - BODY WINDOW RATTLES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT011 - HEATER DEFROSTER A C BLOWER OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT012 - CHECK RADIO BOX LOCK		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT013 - AIR COMPRESSOR LOAD PSI UNLOAD PSI		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX001 - HEADLIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX002 - TURN SIGNALS 4WAYS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX003 - MARKER AND CLEARANCE LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX004 - TAIL BRAKE BACK UP LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX005 - LICENSE PLATE LIGHT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX006 - VINYL CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX007 - GENERAL BODY CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX008 - LUBE ALL EXTERIOR DOOR HINGES LATCHES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX009 - INSPECT ALL WHEEL AND AXLE NUTS AND INDICATORS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX011 - DESTINATION SIGN OPERATION ALL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX012 - CHECK; WINDSHIELD WIPERS BLADES ARMS WASHERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX013 - DOORS ADJUSTMENT SEALS CONDITION AND SPEED		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX014 - CLEAN DEFROSTER FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX015 - KNEEL OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX017 - BIKE RACK CONDITION AND OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX021 - CHECK POWER STEERING FLUID LEVEL AND PUMP		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-A continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
		License:			
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM:</b>		<b>No</b>	
PMCEC002 - OIL LEVEL CORRECT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC003 - TRANSMISSION FLUID LEVEL CORRECT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC004 - FUEL PRO FILTER FUEL LEVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC005 - INSPECT AIR CLEANER HOUSING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC006 - REPLACE AIR FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC008 - TIGHTEN ALL RADIATOR HOSE CLAMPS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC010 - CHECK BOOSTER PUMP FOR LEAKS OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC011 - ENGINE COMPARTMENT SWITCHES LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC012 - RADIATOR SURGE TANK CAP GASKET LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC013 - HOSES RUBBING CHAFFING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC014 - WIRE SECURED NOT RUBBING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC015 - CLEAN RADIATOR AIR CHARGE CORES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC017 - ALT BELT CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC018 - A C BELT CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC019 - INTAKE CAC TUBE CONDITION CLAMPS AND HOSES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC020 - INSPECT AND CLEAN BATTERIES AND CABLES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC021 - CHECK BATTERY DISCONNECT SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC022 - EXHAUST SYSTEM INSPECTION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC023 - VOLTAGE DROP TEST; AT FAST IDLE ACC. ON		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC024 - LUBE BATTERY BOX HINGE ROLLERS		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-A continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
License:					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM:</b>		<b>No</b>	
PMGIN001 - BRAKE & ACCELERATOR PEDAL OPERATION LUBE BRAKE ROLLER		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN002 - HORN BUTTON OPERATION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN003 - SHIFT KEY PAD OPERATION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN004 - WIPER WASHER SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN005 - DIMMER TURN SIGNAL SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN006 - INSTRUMENT PANEL SWITCHES OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN007 - DRIVER'S SEAT CUSHION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN008 - DRIVER SEAT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN009 - EMERGENCY WINDOW LATCH OPERATION AND LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN010 - W C RESERVOIR LEVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN011 - FRONT AND REAR DOOR OPERATION-LUBE BEARINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN014 - DOME AND STEP LIGHT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN016 - STOP REQUEST SIGN AND BELL OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN017 - P.A. SYSTEM OPERATION INT EXT SPEAKERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN018 - WINDOWS; LATCH OPERATION-LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN019 - GLASS CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN020 - STANCHIONS AND GRAB RAILS; SECURE CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN021 - SEAT FRAMES AND COVERING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN023 - MIRRORS CONDITION AND TIGHTEN		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN024 - EMERGENCY DOOR OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-A continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
License:					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM A</b>		<b>Exception PM:</b>		<b>No</b>	
PMGIN025 - SAFETY EQUIPMENT REGISTRATION INS. AND MESS KIT		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN026 - FLOOR COVERING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN028 - HEATER AND VENT CABLE OPERATION-LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN029 - W C LIFT RAMP OPERATION AND LUBE AS REQUIRED		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN030 - W C LIFT RAMP SURFACE COATING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN031 - TILT-TELESCOPE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN032 - T.P.S. RETURN SPRINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN033 - W C BELTS AND RETRACTORS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN034 - W C STOP REQUEST OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN035 - REPLACE RETURN AIR FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN036 - CLEAN REPLACE FLOOR HEATER FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN037 - FAREBOX KEY PAD VISE		<input type="checkbox"/>	<input type="checkbox"/>		
PMGIN038 - ZONAR OPERATIONS AND EQUIPMENT		<input type="checkbox"/>	<input type="checkbox"/>		
PMADD001 - 5000 MILE A C PM		<input type="checkbox"/>	<input type="checkbox"/>		

**PM Checklist Items** PM Service(s): 40D PM-B

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
License:					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>		<b>Exception PM: No</b>			
PMCUC001 - CHANGE ENGINE OIL AND FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC002 - INSPECT ENGINE MOUNTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC040 - CHANGE TRANSMISSION OIL AND FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC003 - CHECK COOLING FAN		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC005 - OIL WATER AIR LINES FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC006 - TRANSMISSION LINES CONDITION LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC042 - CHECK DIFFERENTIAL OIL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC008 - DRIVE SHAFT AND U-JOINTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC009 - REAR AXLE U-BOLTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC010 - REAR SHOCKS AND BUSHINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC011 - REAR BELLOWS AND PISTONS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC012 - REAR RADIUS ROD BUSHINGS AND MOUNTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC013 - CHECK REAR BRAKE ADJ		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC014 - REAR BRAKE CHAMBER PARKING BRAKE SPRING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC015 - FUEL TANK AND LINES FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC016 - MUD FLAPS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC017 - FRONT RADIUS ROD BUSHINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC043 - FRONT BELLOW BELLOW MOUNT AND PISTON		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-B continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		None			
License:					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>		<b>Exception PM: No</b>			
PMCUC019 - CHECK FRONT BRAKE ADJ		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC020 - DRAG LINK TIE ROD RELAY ROD ENDS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC021 - KING PINS CHECK MOVEMENT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC022 - CHECK STEERING SHAFT U-JOINTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC023 - WHEEL SEALS FOR LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC044 - CHECK TIRE PRESSURE AND WEAR		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC025 - LUBE ALL COMPONENTS AS REQUIRED		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC026 - CHECK SR-1 VALVE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC027 - DRAIN AIR TANKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC028 - BRAKE PRESSURE TEST		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC029 - LEVELING VALVES AND LINKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC030 - RIDE HEIGHT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCUC031 - CHECK AIR DRYER OPERATION REBUILD		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT002 - BRAKE RETARDER OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT003 - SPEEDOMETER AND GAUGE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT004 - BACK -UP ALARM OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT005 - STEERING FREE TRAVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT007 - TRANSMISSION SHIFT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT008 - ENGINE PERFORMANCE SMOKING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT009 - PARK BRAKE ADJUSTMENT TUG TEST		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-B continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:	None		
Asset: 402 - 2020 GILLIG G27B102 35FT LFR			License:		
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>		<b>Exception PM: No</b>			
PMCRT010 - BODY WINDOW RATTLES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT011 - HEATER DEFROSTER A C BLOWER OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT012 - CHECK RADIO BOX LOCK		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT013 - AIR COMPRESSOR LOAD PSI UNLOAD PSI		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX001 - HEADLIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX002 - TURN SIGNALS 4WAYS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX003 - MARKER AND CLEARANCE LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX004 - TAIL BRAKE BACK UP LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX005 - LICENSE PLATE LIGHT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX006 - VINYL CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX007 - GENERAL BODY CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX008 - LUBE ALL EXTERIOR DOOR HINGES LATCHES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX019 - INSPECT TIGHTEN ALL WHEEL AND AXLE NUTS AND INDICATORS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX011 - DESTINATION SIGN OPERATION ALL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX012 - CHECK; WINDSHIELD WIPERS BLADES ARMS WASHERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX013 - DOORS ADJUSTMENT SEALS CONDITION AND SPEED		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX014 - CLEAN DEFROSTER FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX015 - KNEEL OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX017 - BIKE RACK CONDITION AND OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC028 - CHANGE POWER STEERING FLUID AND FILTER		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-B continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:	None		
Asset: 402 - 2020 GILLIG G27B102 35FT LFR			License:		
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>		<b>Exception PM: No</b>			
PMCEC002 - OIL LEVEL CORRECT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC029 - CHANGE TRANSMISSION FLUID AND FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC030 - CHANGE ENGINE MOUNTED FUEL FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC004 - FUEL PRO FILTER FUEL LEVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC005 - INSPECT AIR CLEANER HOUSING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC006 - REPLACE AIR FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC031 - CHECK CONDITION OF INTAKE SYSTEM HOSES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC008 - TIGHTEN ALL RADIATOR HOSE CLAMPS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC010 - CHECK BOOSTER PUMP FOR LEAKS OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC011 - ENGINE COMPARTMENT SWITCHES LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC012 - RADIATOR SURGE TANK CAP GASKET LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC033 - CHECK HOSES RUBBING CHAFFING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC014 - WIRE SECURED NOT RUBBING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC015 - CLEAN RADIATOR AIR CHARGE CORES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC019 - INTAKE CAC TUBE CONDITION CLAMPS AND HOSES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC034 - CHECK AND CLEAN BATTERIES AND CABLES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC021 - CHECK BATTERY DISCONNECT SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC022 - EXHAUST SYSTEM INSPECTION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC023 - VOLTAGE DROP TEST; AT FAST IDLE ACC. ON		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC024 - LUBE BATTERY BOX HINGE ROLLERS		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-B continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay: None			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		License:			
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>					
PMCN001 - BRAKE & ACCELERATOR PEDAL OPERATION LUBE BRAKE ROLLER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN002 - HORN BUTTON OPERATION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN003 - SHIFT KEY PAD OPERATION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN004 - WIPER WASHER SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN005 - DIMMER TURN SIGNAL SWITCH OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN006 - INSTRUMENT PANEL SWITCHES OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN007 - DRIVER'S SEAT CUSHION CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN008 - DRIVER SEAT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN009 - EMERGENCY WINDOW LATCH OPERATION AND LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN010 - W C RESERVOIR LEVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN011 - FRONT AND REAR DOOR OPERATION-LUBE BEARINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN014 - DOME AND STEP LIGHT OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN016 - STOP REQUEST SIGN AND BELL OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN017 - P.A. SYSTEM OPERATION INT EXT SPEAKERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN018 - WINDOWS; LATCH OPERATION-LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN019 - GLASS CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN020 - STANCHIONS AND GRAB RAILS; SECURE CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN021 - SEAT FRAMES AND COVERING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN023 - MIRRORS CONDITION AND TIGHTEN		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN024 - EMERGENCY DOOR OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-B continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay: None			
Asset: 402 - 2020 GILLIG G27B102 35FT LFR		License:			
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 40 DIESEL PM B</b>					
PMCN025 - SAFETY EQUIPMENT REGISTRATION INS. AND MESS KIT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN026 - FLOOR COVERING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN028 - HEATER AND VENT CABLE OPERATION-LUBE		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN029 - W C LIFT RAMP OPERATION AND LUBE AS REQUIRED		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN030 - W C LIFT RAMP SURFACE COATING CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN031 - TILT-TELESCOPE OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN032 - T.P.S. RETURN SPRINGS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN033 - W C BELTS AND RETRACTORS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN034 - W C STOP REQUEST OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN035 - REPLACE RETURN AIR FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN036 - CLEAN REPLACE FLOOR HEATER FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN037 - FAREBOX KEY PAD VISE		<input type="checkbox"/>	<input type="checkbox"/>		
PMCN038 - ZONAR OPERATIONS AND EQUIPMENT		<input type="checkbox"/>	<input type="checkbox"/>		
PMADD001 - 5000 MILE A C PM		<input type="checkbox"/>	<input type="checkbox"/>		

**PM Checklist Items** PM Service(s): 40D PM-C

Work Order Number:	WO Status:	Work Order Delay:
Asset:402 - 2020 Gillig G27B102 35FT LFR		
Task	Completed by Employee	N/A Failed SR Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>		<b>Exception PM: No</b>
PMCUC001 - CHANGE ENGINE OIL AND FILTERS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC002 - INSPECT ENGINE MOUNTS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC040 - CHANGE TRANSMISSION OIL AND FILTERS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC003 - CHECK COOLING FAN		<input type="checkbox"/> <input type="checkbox"/>
PMCUC005 - OIL WATER AIR LINES FOR LEAKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC006 - TRANSMISSION LINES CONDITION LEAKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC048 - CHANGE DIFFERENTIAL OIL		<input type="checkbox"/> <input type="checkbox"/>
PMCUC008 - DRIVE SHAFT AND U-JOINTS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC009 - REAR AXLE U-BOLTS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC010 - REAR SHOCKS AND BUSHINGS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC011 - REAR BELLOWS AND PISTONS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC012 - REAR RADIUS ROD BUSHINGS AND MOUNTS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC013 - CHECK REAR BRAKE ADJ		<input type="checkbox"/> <input type="checkbox"/>
PMCUC014 - REAR BRAKE CHAMBER PARKING BRAKE SPRING		<input type="checkbox"/> <input type="checkbox"/>
PMCUC015 - FUEL TANK AND LINES FOR LEAKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC016 - MUD FLAPS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC017 - FRONT RADIUS ROD BUSHINGS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC043 - FRONT BELLOW BELLOW MOUNT AND PISTON		<input type="checkbox"/> <input type="checkbox"/>

PM/Inspection Service 40D PM-C continues on next page...

**PM Checklist Items**

Work Order Number:	WO Status:	Work Order Delay:
Asset:402 - 2020 Gillig G27B102 35FT LFR		
Task	Completed by Employee	N/A Failed SR Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>		<b>Exception PM: No</b>
PMCUC019 - CHECK FRONT BRAKE ADJ		<input type="checkbox"/> <input type="checkbox"/>
PMCUC020 - DRAG LINK TIE ROD RELAY ROD ENDS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC021 - KING PINS CHECK MOVEMENT		<input type="checkbox"/> <input type="checkbox"/>
PMCUC022 - CHECK STEERING SHAFT U-JOINTS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC023 - WHEEL SEALS FOR LEAKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC044 - CHECK TIRE PRESSURE AND WEAR		<input type="checkbox"/> <input type="checkbox"/>
PMCUC025 - LUBE ALL COMPONENTS AS REQUIRED		<input type="checkbox"/> <input type="checkbox"/>
PMCUC026 - CHECK SR-1 VALVE OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCUC027 - DRAIN AIR TANKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC028 - BRAKE PRESSURE TEST		<input type="checkbox"/> <input type="checkbox"/>
PMCUC029 - LEVELING VALVES AND LINKS		<input type="checkbox"/> <input type="checkbox"/>
PMCUC030 - RIDE HEIGHT		<input type="checkbox"/> <input type="checkbox"/>
PMCUC031 - CHECK AIR DRYER OPERATION REBUILD		<input type="checkbox"/> <input type="checkbox"/>
PMCRT002 - BRAKE RETARDER OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCRT003 - SPEEDOMETER AND GAUGE OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCRT004 - BACK -UP ALARM OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCRT005 - STEERING FREE TRAVEL		<input type="checkbox"/> <input type="checkbox"/>
PMCRT007 - TRANSMISSION SHIFT OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCRT008 - ENGINE PERFORMANCE SMOKING		<input type="checkbox"/> <input type="checkbox"/>
PMCRT009 - PARK BRAKE ADJUSTMENT TUG TEST		<input type="checkbox"/> <input type="checkbox"/>

PM/Inspection Service 40D PM-C continues on next page...

**PM Checklist Items for**

Work Order Number:	WO Status:	Work Order Delay:			
Asset:402 - 2020 Gillig G27102 35FT LFR					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>					
PMCRT010 - BODY WINDOW RATTLES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT011 - HEATER DEFROSTER A C BLOWER OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT012 - CHECK RADIO BOX LOCK		<input type="checkbox"/>	<input type="checkbox"/>		
PMCRT013 - AIR COMPRESSOR LOAD PSI UNLOAD PSI		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX001 - HEADLIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX002 - TURN SIGNALS 4WAYS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX003 - MARKER AND CLEARANCE LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX004 - TAIL BRAKE BACK UP LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX005 - LICENSE PLATE LIGHT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX006 - VINYL CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX007 - GENERAL BODY CONDITION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX008 - LUBE ALL EXTERIOR DOOR HINGES LATCHES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX019 - INSPECT TIGHTEN ALL WHEEL AND AXLE NUTS AND INDICATORS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX010 - TORQUE WHEEL NUTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX011 - DESTINATION SIGN OPERATION ALL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX012 - CHECK; WINDSHIELD WIPERS BLADES ARMS WASHERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX013 - DOORS ADJUSTMENT SEALS CONDITION AND SPEED		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX014 - CLEAN DEFROSTER FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX015 - KNEEL OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEX017 - BIKE RACK CONDITION AND OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-C continues on next page...

**PM Checklist Items for**

Work Order Number:	WO Status:	Work Order Delay:			
Asset:402 - 2020 Gillig G27B102 35FT LFR					
Task	Completed by Employee	N/A	Failed	SR	Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>					
PMCEC028 - CHANGE POWER STEERING FLUID AND FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC002 - OIL LEVEL CORRECT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC029 - CHANGE TRANSMISSION FLUID AND FILTERS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC030 - CHANGE ENGINE MOUNTED FUEL FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC004 - FUEL PRO FILTER FUEL LEVEL		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC005 - INSPECT AIR CLEANER HOUSING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC006 - REPLACE AIR FILTER		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC031 - CHECK CONDITION OF INTAKE SYSTEM HOSES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC008 - TIGHTEN ALL RADIATOR HOSE CLAMPS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC010 - CHECK BOOSTER PUMP FOR LEAKS OPERATION		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC011 - ENGINE COMPARTMENT SWITCHES LIGHTS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC012 - RADIATOR SURGE TANK CAP GASKET LEAKS		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC033 - CHECK HOSES RUBBING CHAFFING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC014 - WIRE SECURED NOT RUBBING		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC015 - CLEAN RADIATOR AIR CHARGE CORES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC036 - CHECK ALT BELT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC037 - CHECK A C BELT		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC019 - INTAKE CAC TUBE CONDITION CLAMPS AND HOSES		<input type="checkbox"/>	<input type="checkbox"/>		
PMCEC034 - CHECK AND CLEAN BATTERIES AND CABLES		<input type="checkbox"/>	<input type="checkbox"/>		

PM/Inspection Service 40D PM-C continues on next page...

**PM Checklist Items for**

Work Order Number:	WO Status:	Work Order Delay:
Asset:402 - 2020 Gillig G27B102 35FT LFR		
Task	Completed by Employee	N/A Failed SR Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>		<b>Exception PM: No</b>
PMCEC021 - CHECK BATTERY DISCONNECT SWITCH OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCEC022 - EXHAUST SYSTEM INSPECTION		<input type="checkbox"/> <input type="checkbox"/>
PMCEC023 - VOLTAGE DROP TEST; AT FAST IDLE ACC. ON		<input type="checkbox"/> <input type="checkbox"/>
PMCEC024 - LUBE BATTERY BOX HINGE ROLLERS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN001 - BRAKE & ACCELERATOR PEDAL OPERATION LUBE BRAKE ROLLER		<input type="checkbox"/> <input type="checkbox"/>
PMCIN002 - HORN BUTTON OPERATION CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN003 - SHIFT KEY PAD OPERATION CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN004 - WIPER WASHER SWITCH OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN005 - DIMMER TURN SIGNAL SWITCH OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN006 - INSTRUMENT PANEL SWITCHES OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN007 - DRIVER'S SEAT CUSHION CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN008 - DRIVER SEAT OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN009 - EMERGENCY WINDOW LATCH OPERATION AND LUBE		<input type="checkbox"/> <input type="checkbox"/>
PMCIN010 - W C RESERVOIR LEVEL		<input type="checkbox"/> <input type="checkbox"/>
PMCIN011 - FRONT AND REAR DOOR OPERATION-LUBE BEARINGS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN014 - DOME AND STEP LIGHT OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN016 - STOP REQUEST SIGN AND BELL OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN017 - P.A. SYSTEM OPERATION INT EXT SPEAKERS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN018 - WINDOWS; LATCH OPERATION-LUBE		<input type="checkbox"/> <input type="checkbox"/>

PM/Inspection Service 40D PM-C continues on next page...

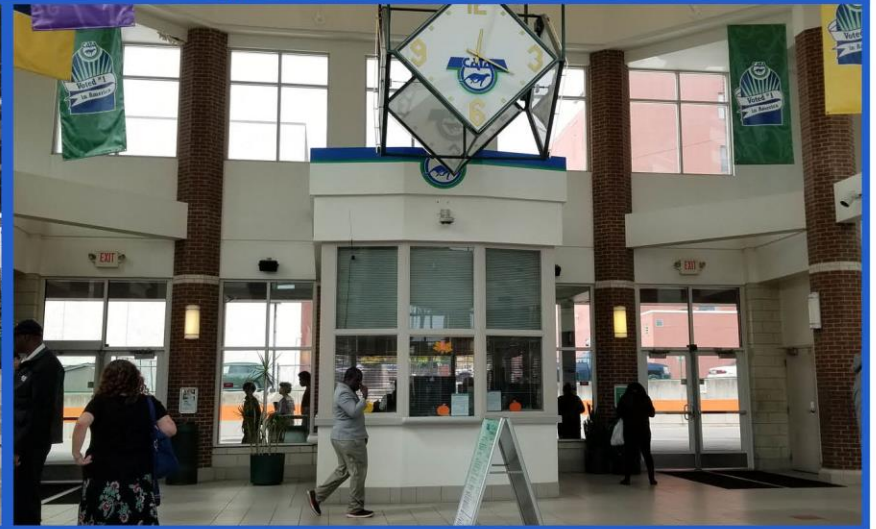
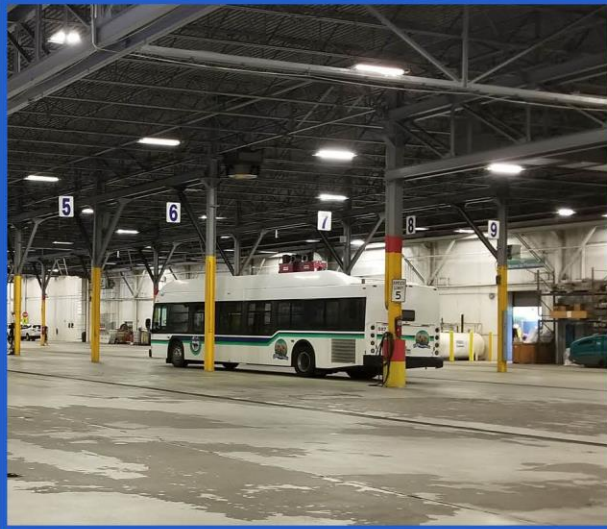
**PM Checklist Items for**

Work Order Number:	WO Status:	Work Order Delay:
Asset:402 - 2020 Gillig G27B102 35FT LFR		
Task	Completed by Employee	N/A Failed SR Comments
<b>PM/Inspection Service: 41 DIESEL PM C</b>		<b>Exception PM: No</b>
PMCIN019 - GLASS CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN020 - STANCHIONS AND GRAB RAILS; SECURE CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN021 - SEAT FRAMES AND COVERING CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN023 - MIRRORS CONDITION AND TIGHTEN		<input type="checkbox"/> <input type="checkbox"/>
PMCIN024 - EMERGENCY DOOR OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN025 - SAFETY EQUIPMENT REGISTRATION INS. AND MESS KIT		<input type="checkbox"/> <input type="checkbox"/>
PMCIN026 - FLOOR COVERING CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN028 - HEATER AND VENT CABLE OPERATION-LUBE		<input type="checkbox"/> <input type="checkbox"/>
PMCIN029 - W C LIFT RAMP OPERATION AND LUBE AS REQUIRED		<input type="checkbox"/> <input type="checkbox"/>
PMCIN030 - W C LIFT RAMP SURFACE COATING CONDITION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN031 - TILT-TELESCOPE OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN032 - T.P.S. RETURN SPRINGS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN033 - W C BELTS AND RETRACTORS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN034 - W C STOP REQUEST OPERATION		<input type="checkbox"/> <input type="checkbox"/>
PMCIN035 - REPLACE RETURN AIR FILTERS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN036 - CLEAN REPLACE FLOOR HEATER FILTERS		<input type="checkbox"/> <input type="checkbox"/>
PMCIN037 - FAREBOX KEY PAD VISE		<input type="checkbox"/> <input type="checkbox"/>
PMCIN038 - ZONAR OPERATIONS AND EQUIPMENT		<input type="checkbox"/> <input type="checkbox"/>
PMADD002 - 15000 MILE A C PM		<input type="checkbox"/> <input type="checkbox"/>

## **ATTACHMENT F**

### **VEHICLE REPLACEMENT PLAN**

Vehicle types are subject to change based on availability of funding, age of vehicles, mileage of vehicles and availability of vehicles in accordance with the Transportation Asset Management (TAM) Plan (*See Attachment F*). CATA anticipates the plan to be updated in October 2022.



## CAPITAL AREA TRANSPORTATION AUTHORITY

# TRANSIT ASSET MANAGEMENT PLAN

March 1, 2019

This page is intentionally left blank.

**Prepared for:**

Capital Area Transportation Authority  
4615 Tranter Street  
Lansing, MI 48910

**Prepared by:**

AECOM  
3101 Wilson Boulevard  
Arlington, VA 22201  
aecom.com

# TABLE OF CONTENTS

- List of Figures ..... ii
- List of Tables ..... iii
- List of Appendix Tables ..... iii
- Acronyms and Abbreviations ..... iv
- Executive Summary ..... v
- 1 Introduction ..... 1
  - 1.1 Background and Purpose ..... 1
  - 1.2 Overview of CATA ..... 2
  - 1.3 TAM and SGR Policy ..... 3
  - 1.4 Plan Organization ..... 4
- 2 Inventory of Capital Assets ..... 5
  - 2.1 Introduction ..... 5
    - 2.1.1 Summary of Data Assembly ..... 5
  - 2.2 Summary of Asset Inventory ..... 6
    - 2.2.1 Vehicles ..... 8
    - 2.2.2 Stations/Passenger Facilities ..... 8
    - 2.2.3 Facilities ..... 9
- 3 Assessment of Asset Condition and Performance ..... 10
  - 3.1 Introduction ..... 10
  - 3.2 Asset Condition ..... 10
    - 3.2.1 Previous Work ..... 10
    - 3.2.2 Condition Assessment Methodology ..... 10
    - 3.2.3 Summary of Results ..... 12
  - 3.3 Asset Performance and Targets ..... 13
- 4 Decision Support Tool ..... 15
  - 4.1 Introduction ..... 15
  - 4.2 Decision Support Tool Needs Assessment ..... 15
  - 4.3 SGR Analysis Process And Methodology ..... 16
    - 4.3.1 TERM Lite Inputs ..... 17
    - 4.3.2 TERM Lite Analysis ..... 18
    - 4.3.3 TERM Lite Outputs ..... 22
- 5 Investment Prioritization ..... 24
  - 5.1 Introduction ..... 24
  - 5.2 Prioritization Process ..... 24
  - 5.3 SGR Backlog ..... 24
  - 5.4 SGR Needs ..... 25
  - 5.5 Summary of Proposed Projects ..... 27
    - 5.5.1 Vehicle Projects ..... 27
    - 5.5.2 Facility Projects ..... 30
    - 5.5.3 Station Projects ..... 31
- 6 Implementation Strategy ..... 33

- 6.1 Accountability: Roles and Responsibilities ..... 33
- 6.2 Key Changes In Assets ..... 35
- 6.3 Asset Information Strategy ..... 36
  - 6.3.1 Existing Conditions ..... 36
  - 6.3.2 Asset Management System Improvements ..... 36
- 7 List of Key Annual Activities ..... 38
  - 7.1 Scheduled and Preventative Maintenance ..... 38
  - 7.2 TAM Plan Activities ..... 38
- 8 Identification of Resources ..... 39
  - 8.1 Human Resource Needs ..... 39
  - 8.2 Financial Resource Needs..... 39
- 9 Evaluation Plan ..... 41
  - 9.1 TAM Plan Monitoring and Evaluation ..... 41
    - 9.1.1 Performance Target Setting and Reporting ..... 41
    - 9.1.2 Progress of Planned Asset Management Activities ..... 41
  - 9.2 TAM Plan Update ..... 41
    - 9.2.1 Alignment of TAM And SGR Policy With Agency-Wide Strategic Plan ..... 42
    - 9.2.2 Updates on Implementation Strategy ..... 42
- Appendix A. Asset Inventory..... 43
- Appendix B. Investment Project Lists ..... 51
  - B.1 Detailed Vehicle Project List ..... 51
  - B.2 Detailed Facility Project List..... 53
  - B.3 Detailed Station Project List..... 55

**LIST OF FIGURES**

- Figure 2-1: Replacement Value by Asset Category (Millions of 2018\$)..... 7
- Figure 4-1 State of Good Repair Analysis Process ..... 17
- Figure 4-2 Multi-Criteria Decision Analysis Capability in TERM Lite ..... 19
- Figure 4-3 Asset Evaluation Factors and Weights..... 19
- Figure 4-4 Safety and Security Risk Ratings by Asset Type..... 20
- Figure 4-5 O&M Cost Impact Ratings by Asset Element..... 21
- Figure 4-6 Reliability Ratings by Asset Element..... 22
- Figure 5-1 Current SGR Backlog by Asset Category (Millions of 2018\$) ..... 25
- Figure 5-2 20-Year SGR Need - Unconstrained Scenario (Thousands of 2018\$)..... 26
- Figure 5-3 20-Year SGR Need for Vehicles (Unconstrained Scenario in YOES\$) ..... 27
- Figure 5-4 20-Year Projected Vehicle Investments (2019-2038) ..... 28
- Figure 5-5 Projected vehicle Expenditure Showing Rehabilitations and Replacements (2019-2038) ..... 28
- Figure 5-6 Vehicle Backlog Associated with Projected Vehicle Investments ..... 29
- Figure 5-7 20-Year SGR Need for Facilities - Unconstrained Scenario (YOES\$)..... 30
- Figure 5-8 20-Year Projected Facility Investments (2019-2038) ..... 30
- Figure 5-9 20-Year SGR Need for Stations by Location - Unconstrained Funding Scenario (YOES\$)..... 31
- Figure 5-10 20-Year Projected Station Investments by Location (2019-2038) ..... 32
- Figure 6-1 CATA Organizational Chart with Asset Management Team Indicated ..... 34

## LIST OF TABLES

Table 2-1: CATA Asset Inventory Snapshot .....	6
Table 2-2: Asset Replacement Value by Asset Type .....	7
Table 2-3: CATA Vehicles Summarized by Operator and Mode .....	8
Table 2-4: Summary of CATA Stations/ Passenger Facilities (Address and Replacement Cost).....	9
Table 2-5: Summary of CATA Facilities (Address and Replacement Cost).....	9
Table 3-1: TAM/NTD Crosswalk .....	11
Table 3-2: FTA TERM Rating Scale.....	11
Table 3-3: Distribution of CATA Assets by Condition Rating and Replacement Cost* (\$000s) .....	12
Table 3-4 Distribution of Vehicles by Condition Rating and Replacement Cost (\$000s).....	13
Table 3-5 Distribution of Vehicle Counts by Condition Rating and Replacement Cost (\$000s) .....	13
Table 3-6: FTA TAM Performance Measures and FY19 Targets for CATA .....	14
Table 4-1 Decision Support Tool for CATA Needs and TERM Lite Capabilities .....	16
Table 4-2 Useful TERM Lite Analysis Scenarios .....	18
Table 4-3 Summary of Condition Ratings and Condition Priority Scores.....	20
Table 5-1 Current SGR Backlog by Detailed Asset Type.....	25
Table 5-2 Estimated SGR Needs by Category for 2019 to 2022 (Thousands of 2018\$) .....	26
Table 5-3 Total Vehicle Replacement Counts and Costs (2019 to 2022).....	29
Table 5-4 Facility Projects with a TERM Rating Below 3.0 (2019-2022) .....	31
Table 5-5 Station Projects with a TERM Rating Below 3.0 (2019-2022) .....	32
Table 6-1 Asset Management Team Roles and Responsibilities .....	35
Table 8-1 Historical Spending on Rehabilitation, Reconstruction and Replacement for Existing Service (2006-2016) .....	40
Table 8-2 Planned/Budgeted Vehicle Funding Requests FY19 to FY23 .....	40

## LIST OF APPENDIX TABLES

Table B- 1 Project List for All Vehicles - Rehabilitations and Replacements - \$000s of YOE (2019-2038).....	51
Table B- 2 Project List for All Vehicles – Vehicle Counts for Replacements Only (2019-2038) .....	51
Table B- 3 Project List for All Vehicles - Replacements Only - \$000s of YOE (2019-2038).....	52
Table B- 4 Project List for All Vehicles - Rehabilitations Only - \$000s of YOE (2019-2038) .....	52
Table B- 5 Project List for Admin./Maint. Facility - \$000s of YOE (2019-2038).....	53
Table B- 6 Project List for CTC - \$000s of YOE (2019-2038).....	55
Table B- 7 Project List for MSU-Shaw Parking Ramp - \$000s of YOE (2019-2038).....	55
Table B- 8 Project List for Multimodal Gateway - \$000s of YOE (2019-2038).....	55

## ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
CATA	Capital Area Transportation Authority
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CTC	CATA Transportation Center
EAM	Enterprise Asset Management
ERP	Enterprise Resource Planning
FTA	Federal Transit Administration
FTA TAM Rule	49 CFR 625
FY	Fiscal Year
HVAC	Heating, Ventilation, and Air-Conditioning
IT	Information Technology
MSU	Michigan State University
NTD	National Transit Database
TAM	Transit Asset Management
TERM	Transit Economic Requirements Model
SGR	State of Good Repair
ULB	Useful Life Benchmark
YOE	Year of Expenditure

# EXECUTIVE SUMMARY

The Transit Asset Management (TAM) Rule is a set of federal regulations (49 Code of Federal Regulations [CFR] part 25) that sets out minimum asset management practices to guide transit providers on how to manage capital assets and prioritize funding to improve or maintain assets in a state of good repair (SGR). Requiring agencies to develop TAM plans and set performance targets will lower long-term maintenance costs for each individual transit agency and ultimately decrease the national budget dedicated to repair or replacement of public transportation assets.

A TAM Plan tracks system performance and condition to develop strategies for efficiently managing assets for SGR in addition to maintaining funding eligibility. As outlined in the TAM Final Rule, each fiscal year (FY) that a transit agency receives or provides federal assistance to any public transportation operator, the agency is required to report information on the condition of its public transportation assets as provided in Federal Transit Administration (FTA) regulations, "Transit Asset Management; National Transit Database", 49 CFR parts 625 and 630.

CATA is considered a Tier II agency since it operates less than 100 revenue vehicles during peak regular service across all non-rail fixed route modes. CATA is therefore required to develop a TAM Plan, which includes the following four elements:

- Inventory of Capital Assets
- Condition Assessment
- Decision Support Tools
- Investment Prioritization

CATA provides a range of services to the Greater Lansing area and has worked diligently to develop a TAM Plan that supports the agency's strategic goals and dedication to the community. CATA also understands the role of asset management in supporting its vision of enhancing regional mobility through closer collaboration and coordination with neighbouring transit agencies. By keeping its assets in a SGR, CATA can contribute to this vision by providing safe and high-quality transit service.

The TAM Plan provides a comprehensive picture of CATA's current capital assets and a detailed plan of asset management activities. This Executive Summary highlights the CATA TAM Plan covering the period between October 2018 to October 2022.

## TAM AND SGR POLICY

CATA will manage its portfolio of capital assets in a sustainable and effective manner by adopting an integrated lifecycle approach to ensure the safety, quality, cost-effectiveness and reliability of its transit services.

To achieve this policy, CATA will do the following:

- Maintain an up-to-date inventory of all its capital assets used in the delivery of public transportation
- Conduct timely assessments of asset condition to support a state of good repair
- Invest and maintain assets with consideration of their cost, performance, and impact on service and customers over the course of their entire lifecycle
- Implement relevant systems and technologies and support their effective application to enhance the benefits of CATA's assets to make better and informed investment decisions in relation to those assets
- Measure asset performance to comply with federal regulations and to strengthen customer confidence in system safety and reliability
- Promote asset management culture within the agency and across all organizational levels

## ASSET INVENTORY AND CONDITION

The CATA Asset Inventory consists of 354-line items comprising vehicle, station and facility assets. Facility and station assets are broken down into subcomponents consistent with the management of those elements. The 354-line items have a total replacement value of \$121.3 million, which consists of \$80.5 million in vehicle assets, \$34.1 million in facility assets and \$6.8 million in station assets (2018 dollars). The average percent of useful life remaining based on replacement value is 40.3%. This means that on average, CATA's assets are more than halfway through their useful lives.

Currently, CATA has an SGR backlog of \$35.9 million in 2018 dollars; vehicles are the asset class with the greatest backlog at \$29.1 million (81.0%). On average, an annual capital investment of \$9.9 million in 2018 dollars is required over the next 20 years to maintain all assets a condition of SGR.

## IMPLEMENTATION STRATEGY PLANNED AND ACTIVITIES

The TAM Plan implementation will be led by the CATA Asset Management Team, a task force composed of senior managers with direct or supporting responsibilities in asset management. The Chief Executive Officer (CEO) is the Accountable Executive, who is ultimately responsible for the development and implementation of the TAM Plan. The designated Chair of the Asset Management Team is the System Planner, who oversees and coordinates the development and implementation of the TAM Plan. The other Asset Management Team members will lead the asset management activities in their respective functional areas. CATA will provide continuous training to its employees so that its employees stay current with evolving technologies.

The CATA TAM Plan projects that the four-year total capital need for vehicles will be \$48.6 million in 2018 dollars for the period between 2019 and 2022. Facilities and station assets rated below 3.0 on the FTA TERM scale and that require immediate investment total approximately \$2 million and \$0.4 million respectively. CATA will need to identify and secure capital funding to meet the projected backlog and future investment needs.

## EVALUATION PLAN

CATA will evaluate the implementation of its TAM Plan on an annual basis and update the plan every four years per FTA regulations. The annual TAM Plan evaluation process has two components: (1) performance target setting and reporting, as required by the TAM Rule, and (2) measuring the progress of planned asset management activities. The TAM Plan update process involves a more thorough evaluation of the plan that covers all aspects including TAM and SGR policy, asset inventory and condition, and investment prioritization in addition to the scope of the annual evaluation.

# 1 INTRODUCTION

## 1.1 BACKGROUND AND PURPOSE

In accordance with the 2012 Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) Act, the Federal Transit Administration (FTA) published the Final Rule that established a National Transit Asset Management (TAM) System on July 26, 2016. The Final Rule, codified in 49 Code of Federal Regulations (CFR) 625, requires all agencies that receive federal funds under 49 U.S.C. Chapter 53 and own, operate, or manage public transportation capital assets to develop and implement transit asset management plans. The FTA defines TAM as *the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles to provide safe, cost-effective, and reliable public transportation*. A key tenet of TAM is the use of asset condition to manage capital assets and prioritize funding to maintain or improve a state of good repair (SGR).

A TAM Plan is a tool that will aide transit providers in:

- Assessing the current condition of its capital assets;
- Determining what the condition and performance of its assets should be (if they are not already in a state of good repair);
- Identifying the unacceptable risks, including safety risks, in continuing to use an asset that is not in a state of good repair; and
- Deciding how to best balance and prioritize reasonably anticipated funds (revenues from all sources) towards improving asset condition and achieving a sufficient level of performance within those means.

*Transit Asset Management is the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles to provide safe, cost-effective, and reliable public transportation.*

The TAM Plan must cover a horizon period of at least four years and must be updated at least once every four years. According to the Final Rule, an agency's TAM Plan update must coincide with the planning cycle for the relevant Transportation Improvement Program (TIP) or Statewide Transportation Improvement Program (STIP). An agency may also amend its TAM Plan at any time during the TAM Plan horizon period. An amendment is required whenever there is a significant change to the asset inventory, condition assessments, or investment prioritization that the provider did not anticipate during the development of the plan.

As a Tier II transit provider, the Capital Area Transportation Authority (CATA) developed this TAM Plan to fulfill the requirements of the FTA TAM Rule, 49 CFR 625. The rule requires agency TAM Plans to include the following elements:

- Inventory of (Capital) Assets
- Condition Assessment
- Decision Support Tool(s) (approaches to decision-making)
- Investment Prioritization (Prioritized list of projects)

The CATA Transit Asset Management (TAM) plan is a living document developed to guide CATA's asset management activities to enhance safety, reduce maintenance costs, increase reliability, and improve system performance. The plan will also provide CATA with knowledge of existing asset condition, asset performance, and a target level of service, which will in turn provide the ability to effectively manage the asset lifecycle, confidently provide sustained performance, and justify funding requirements to deliver the required levels of service.

## 1.2 OVERVIEW OF CATA

Since 1972, CATA has provided public transportation services to the Greater Lansing area in Michigan, which includes Ingham County, portions of Eaton County, and Clinton County. CATA also provides services on the campus of Michigan State University (MSU). CATA seeks to provide quality transportation services that are safe, timely and cost-efficient, responding creatively to the diverse mobility needs of the region, and delivering this service by dedicated employees in a professional manner. The agency's mission is to meet the mobility needs of the region by providing innovative solutions in partnership with the communities they serve.

CATA's system is comprised of 33 routes in total, which produced nearly 10 million rides in Fiscal Year (FY) 2018. Services are provided through both fixed route (directly operated) and demand response (directly operated and contracted) operations to the communities within its jurisdiction. In FY2018, contracted (purchased transportation) services accounted for nearly 500,000 rides, about half of CATA's demand-response services.

A brief description of available services is provided below:

### Fixed Route Service (Directly Operated)

- **Lansing Area Routes:** Lansing Area Routes cover the Greater Lansing Area by providing fixed route service to and from the CATA Transportation Center (CTC) located in downtown Lansing.
- **East Side Routes:** East Side Routes consist of six routes that serve East Lansing, Okemos, Haslett and southeast Lansing. These routes also serve the MSU campus.
- **MSU Campus Routes:** MSU campus routes are serviced by CATA during the fall and spring semesters.
- **Limiteds:** Limiteds provide direct service from Mason, Williamston and Webberville to downtown Lansing during the weekday morning and afternoon rush hours, making limited stops for a faster commute.
- **Entertainment Express:** Entertainment Express provides trolley service to the entertainment venues along Michigan and Grand River Avenues. The trolley travels between downtown Lansing and downtown East Lansing.
- **Community Event Routes:** Community Event Routes provide service during Greater Lansing's annual events and festivals.

#### **CATA's Mission:**

*"To meet the mobility needs of our region by providing innovative solutions in partnership with the communities we serve."*

#### **CATA's Vision:**

*"CATA will ensure public trust by re-thinking regional mobility challenges and how we better engage those we serve."*

### Demand Response Service (Directly Operated)

- **Delhi/Meridian Redi-Ride:** Redi-Ride is an advance-reservation, curb-to-curb service that operates Monday through Saturday.
- **Lot Link:** Lot Link provides curb-to-curb transportation on MSU's campus seven days a week during the academic year. Lot Link operates in the evenings and on weekends to provide connections between some MSU parking lots and other campus locations.
- **Night Owl:** Night Owl provides late night/early morning campus service when other CATA services are not running. Service is restricted to campus boundaries.
- **Shopping Bus:** Shopping Bus provides service through regularly scheduled weekday trips from select senior housing complexes to grocery stores and shopping centers.
- **Spec-Tran Directly Operated:** Spec-Tran is CATA's Americans with Disabilities Act (ADA) complementary paratransit service for people unable to use CATA's fixed-route system. This is an advance reservation, curb-to-curb service that uses small lift-equipped buses and vans to transport customers.

### **Purchased Transportation Service (Contracted)**

- **CATA Rural Service:** CATA rural service is a demand-response service that connects residents in Ingham County's outlying areas with other CATA services. Generally, residents in the southern half of rural Ingham County are transported to the Meijer in Mason to connect with other CATA services while residents in the northern half of the county's rural area travel on Rural Service to the Meridian Mall in Okemos where they make connections to other services. Some exceptions apply.
- **Mason Redi-Ride:** Redi-Ride is an advance-reservation, curb-to-curb service that operates Monday through Saturday.
- **Mason Connector:** The Connector offers regularly scheduled service (no reservation necessary) between the Mason Meijer and the South Pennsylvania Meijer. In Mason, buses also stop at the 55th District Court. Requests for service deviating up to one mile from the established route may be made if the trip is arranged in advance.
- **Williamston Connector:** The Connector offers regularly scheduled service (no reservation necessary) along Grand River Avenue between Webberville and the Meridian Mall. Buses serve the same stops as Route 48 and travel to the Okemos Meijer. Requests for service deviating within the city limits of Williamston may be made if the trip is arranged in advance. Trips must originate or conclude along the Connector route and be arranged at least 30 minutes in advance.
- **Spec-Tran Purchased:** Spec-Tran is CATA's Americans with Disabilities Act (ADA) complementary paratransit service for people unable to use CATA's fixed-route system. This is an advance reservation, curb-to-curb service that uses small lift-equipped buses and vans to transport customers. This service is contracted to a third party.

Furthermore, CATA expanded its service on the Michigan State University (MSU) campus resulting in a ridership increase of about 30%. However, this was associated with a net ridership decrease of about 6% on the routes around the MSU campus. Despite these service expansions, CATA's revenue vehicle fleet has not been significantly expanded to meet the existing need or future planned expansions.

## **1.3 TAM AND SGR POLICY**

The TAM and SGR policy describes CATA's long-term approach to managing its assets. CATA's TAM and SGR policy is as follows:

CATA will manage its portfolio of capital assets in a sustainable and effective manner by adopting an integrated lifecycle approach to ensure the safety, quality, cost-effectiveness and reliability of its transit services.

To achieve the policy, CATA will:

- Maintain an up-to-date inventory of all its capital assets used in the delivery of public transportation.
- Conduct timely assessments of asset condition to support a state of good repair
- Invest in and maintain assets with consideration of their cost, performance, and impact on service and customers over the course of their entire lifecycle
- Implement relevant systems and technologies and support their effective application to enhance the benefits of CATA's assets to make better and informed investment decisions in relation to those assets
- Measure asset performance to comply with federal regulations and to strengthen customer confidence in system safety and reliability
- Promote asset management culture within the agency and across all organizational levels

This policy is consistent with agency-wide strategic goals, organizational policies, and the transit asset management plan. CATA will ensure the successful implementation of this policy by providing a supportive environment with regard to organizational structure, management culture, funding, and technological capability.

## 1.4 PLAN ORGANIZATION

The TAM Plan provides a comprehensive picture of the CATA's capital assets and a detailed plan of asset management activities within the TAM Plan Horizon. The TAM Plan is organized under the following sections:

- **Section 2 Inventory of Capital Assets:** This section documents the CATA asset inventory, which includes all capital assets that CATA owns or has direct capital responsibility.
- **Section 3 Assessment of Asset Condition and Performance:** This section describes the process for assessing the condition of assets in the CATA inventory and summarizes the results of the analysis.
- **Section 4 Decision Support Tool:** This section describes the application of the decision support tool, an analytical process applied to examine asset renewal requirements and to support the prioritization of assets.
- **Section 5 Investment Prioritization:** This section summarizes the application of the decision support tool and identification of projects to be funded in the near term in CATA's capital program.
- **Section 6 Implementation Strategy:** This section lays out CATA's strategy to implement the TAM Plan.
- **Section 7 List of Key Annual Activities:** This section describes the key annual activities needed to implement the TAM Plan.
- **Section 8 Identification of Resources:** This section is a summary of the human and financial resources needed to implement this TAM Plan.
- **Section 9 Evaluation Plan:** This section describes how CATA will monitor, evaluate, and update the TAM Plan and related business practices.

# 2 INVENTORY OF CAPITAL ASSETS

## 2.1 INTRODUCTION

The Inventory of Capital Assets for the CATA TAM Plan comprises a listing of all rolling stock, equipment, and facility assets owned, operated, and/or maintained by the agency to support the provision of public transportation. Federal law defines public transportation as “regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low-income; and does not include the following:

- Intercity passenger rail transportation;
- Intercity bus service;
- Charter bus service;
- School bus service;
- Sightseeing service;
- Courtesy shuttle service for patrons of one or more specific establishment; or
- Intra-terminal or intra-facility shuttle services” (49 U.S.C. §5302 (14)).

The asset inventory is maintained as a database table in the decision support tool, which will be described later in **Section 4 Decision Support Tool**. The sections that follow describe the data assembly process for the asset inventory and summarize the various assets by category.

### 2.1.1 Summary of Data Assembly

Data assembly included the following activities:

**Assessed data readily available:** Established information from the existing maintenance and finance databases as a baseline and identified data available in other formats to evaluate conformity to the desired asset classification needs. Information reviewed included recent asset condition reports, existing rolling stock and equipment inventories, fixed asset inventories and capital asset lists.

**Interviewed CATA staff:** This included a discussion of previous studies and inventories undertaken. Key staff interviews were used to capture personal knowledge of assets and technical study information. Key personnel including the Executive Director, Maintenance Manager, Facilities Manager and the Director of Finance, were also interviewed to help identify the status of CATA assets, day-to-day issues, and problem areas.

**Identified missing and/or outdated information:** Identified inventory and condition information that needed to be updated in the existing inventories.

**Conducted field data collection:** Once the existing data was collected and missing data identified, additional information requests to CATA staff were initiated to collect the required information.

The following base level of detail was applied in identifying components of the asset inventory:

- |                   |                |
|-------------------|----------------|
| • Asset ID        | • Sub-Category |
| • Mode Code       | • Element      |
| • Description     | • Sub-Element  |
| • Asset Type Code | • Quantity     |
| • Category        | • Units        |

- Date Built
- Rehab Status
- Rehab Date
- Cost Year
- Agency Soft Cost
- Unit Replacement Cost
- Current Dollars Total
- Total Replacement Cost
- Priority Status
- Condition Rating
- Data Date
- Data Source
- Agency Useful Life
- VIN
- Mileage
- License Number
- Lifecycle Status
- Fuel Type
- Fixed Asset System (FAS)
- Original Cost
- Vehicle Length
- Seating Capacity
- Notes
- Existing/Expansion
- Agency Asset ID
- Make/Model
- Address
- Department Asset Owner

Special attention was given to determine the date built (i.e., service year), mode code (demand response or motor bus), lifecycle status (contingency, active, or inactive), and unit replacement cost. Informed assumptions were made as to the service year if the information was not readily available from existing records

## 2.2 SUMMARY OF ASSET INVENTORY

This section provides a summary of the asset inventory utilized in the SGR analysis. There are 354-line items in the CATA Asset Inventory consisting of vehicle, station and facility assets. For the purposes of this analysis, facility and station assets are broken down into subcomponent elements consistent with the management of those assets. Additionally, the inventory has the following characteristics:

- **Total Replacement Value:** The combined assets in the inventory have a total replacement value of \$121.3M. This consists of \$80.5M in vehicles, \$34.1M in facility assets (i.e., maintenance and administrative), and \$6.8M in station assets.
- **Overall Average Age:** The overall weighted average age of assets is 11.2 years when weighted by replacement value. The average age is used for descriptive purposes only as CATA assets vary widely in age.
- **Average Percentage of Useful Life Remaining:** The average percentage useful life remaining is 40.3%, meaning that on average, CATA assets are just over halfway through their useful lives and may require some mid-life investments to meet their entire suggested useful lives.

Table 2-1 provides a snapshot of the asset inventory as applied in the analysis.

**Table 2-1: CATA Asset Inventory Snapshot**

Measure	Value
Number of asset line items	354
Total replacement cost (2018\$)	\$121.3M
Average age of assets (by replacement value)	11.2 years
Average percentage of useful life remaining (by replacement value)	40.3%

Figure 2-1 shows the breakdown of replacement value by asset category: vehicles (revenue and non-revenue), facilities (administrative/maintenance) and stations (passenger facilities). Further details of each asset category are provided in Table 2-2.

**Figure 2-1: Replacement Value by Asset Category (Millions of 2018\$)**

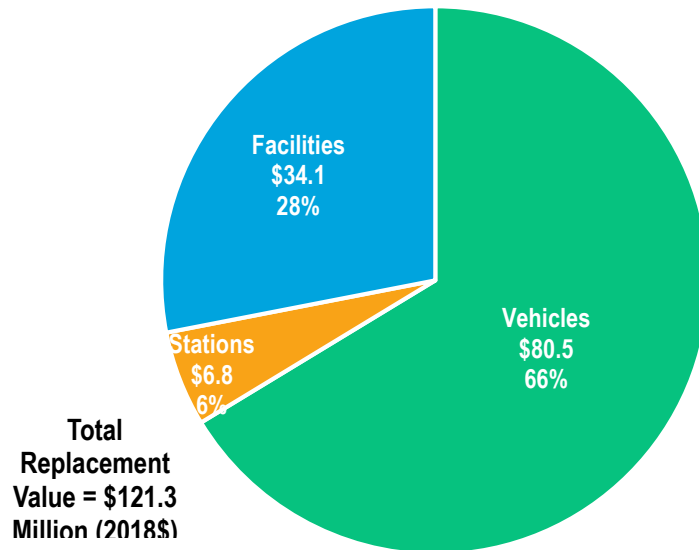


Table 2-2 provides a breakdown of the three asset categories (replacement costs rounded to the nearest million). For the vehicle category, buses, trolleybuses, vans, and cutaways make up the revenue vehicle fleet used to provide both fixed route and demand respond service. CATA’s revenue vehicle fleet does not include any autos; however, the asset hierarchy adopted for the inventory includes autos in the asset type name. The non-revenue vehicles in the inventory are used to support CATA’s various services.

Station assets include access (walkways/parking lots), building components (e.g., roof, HVAC, lighting, etc.), and signage and graphics. Facility assets also include building components as well as maintenance equipment. Further details of the asset categories are provided in the subsequent sections.

**Table 2-2: Asset Replacement Value by Asset Type**

Asset Type	Replacement Cost (Millions of 2018\$)
<b>Vehicles Total</b>	<b>\$80.5</b>
Buses	\$71.2
Trolleybuses	\$0.9
Vans, Cutaways and Autos	\$7.2
Non-revenue vehicles	\$1.3
<b>Stations</b>	<b>\$6.8</b>
Access	\$1.3
Building Components	\$5.4
Signage & Graphics	\$0.0
<b>Facilities</b>	<b>34.1</b>
Building Components	\$28.6
Maintenance Equipment	\$5.5
<b>Total</b>	<b>\$121.3</b>

## 2.2.1 Vehicles

This category of assets consists of revenue and non-revenue (service/equipment) vehicles. There are 248 vehicles in the inventory, including 178 directly operated and 70 contracted vehicles. CATA owns all 248 vehicles. Of this number, 212 are used in revenue service and 36 in non-revenue service. Table 2-3 summarizes the quantities and replacement costs for CATA's vehicles type, mode and operator.

**Table 2-3: CATA Vehicles Summarized by Operator and Mode**

Operator / Mode	Asset Type	Quantity	Average Mileage	Total Replacement Cost (\$000s)
<b>Directly Operated (DO)</b>				
<b>Motor Bus (MB)</b>	Articulated Bus (60 ft)	7	362,760	\$5,281
	Articulated Bus (60 ft) - Hybrid	5	288,893	\$5,713
	Bus (40 ft) - Diesel	36	577,974	\$17,393
	Bus (40 ft) - Hybrid	55	246,181	\$42,214
	Trolleybus	2	108,812	\$867
	<b>Subtotal</b>	<b>105</b>	<b>367,128</b>	<b>\$71,468</b>
<b>Demand Response (DR)</b>	Bus (<30 ft) - Hybrid	2	74,833	\$458
	Bus (30 ft)	1	152,635	\$128
	Medium-Duty Van	34	179,575	\$3,384
	<b>Subtotal</b>	<b>37</b>	<b>173,185</b>	<b>\$3,971</b>
<b>Non-Revenue Vehicles</b>	Car	26	30,152	\$695
	Truck	10	52,957	\$567
	<b>Subtotal</b>	<b>36</b>	<b>36,486</b>	<b>\$1,261</b>
	<b>DO Total</b>	<b>178</b>	<b>260,483</b>	<b>\$76,914</b>
<b>Purchased Transportation (PT)</b>				
<b>Demand Response (DR)</b>	Medium-Duty Van	17	193,568	\$1,623
	Minivan	53	130,992	\$2,176
	<b>PT Total</b>	<b>70</b>	<b>146,189</b>	<b>\$3,799</b>
	<b>Grand Total</b>	<b>248</b>	<b>227,835</b>	<b>\$80,506</b>

## 2.2.2 Stations/Passenger Facilities

CATA owns and operates three passenger facilities: two transit stations and a passenger terminal. The CATA Transportation Center (CTC), located in downtown Lansing, is the central boarding hub and transfer point for 16 CATA routes, and Greyhound and Indian Trails intercity bus services. The station contains a customer information center, on-site security, and a coffee shop. CATA's second station, the Capital Area Multimodal Gateway is operated by CATA and is the authority's newest facility. The Gateway offers access to rail, city, regional and national bus lines, and local taxi services. The Gateway is served by three CATA fixed-routes. The third passenger facility, MSU-CTC, is located on the Michigan State University (MSU) campus adjacent to one of several campus parking ramps, which serves as the main boarding center for CATA routes serving MSU. Table 2-4 summarizes the replacement costs for CATA's stations/passenger facilities.

**Table 2-4: Summary of CATA Stations/ Passenger Facilities (Address and Replacement Cost)**

Address	Year Built	Element	Total Replacement Cost (\$000s)
CATA Transportation Center (CTC) 420 South Grand Ave., Lansing, MI 48933	1998	Building Components	\$3,086
		Site	\$196
		<b>Subtotal</b>	<b>\$3,282</b>
Capital Area Multimodal Gateway <sup>1</sup> 1240 S. Harrison Road, East Lansing 48823	2015	Building Components	\$1,794
		Signage & Graphics	\$54
		Parking (Access)	1,335
		<b>Subtotal</b>	<b>\$3,183</b>
MSU-CTC (Shaw Parking Ramp) <sup>2</sup> MSU Campus, East Lansing, MI 48823	2000	Concrete Pavement	\$40
		Interiors (furniture)	\$323
		<b>Subtotal</b>	<b>\$363</b>
		<b>Total</b>	<b>\$6,828</b>

### 2.2.3 Facilities

CATA's headquarters serves both administrative and maintenance purposes. The facility is home to the executive office, all administrative departments, and a bus storage facility, which houses CATA's directly operated fleet, maintenance and operations. Table 2-5 the replacement cost for CATA's facility.

**Table 2-5: Summary of CATA Facilities (Address and Replacement Cost)**

Asset Type	Address	Year Built	Total Replacement Cost (\$000s)
CATA Headquarters (Administrative and Maintenance)	4615 Tranter Street, Lansing, MI 48910	1978	\$34,055
Building Components	-	-	\$28,559
Maintenance Equipment	-	-	\$5,496
<b>Total</b>	-	-	<b>\$34,055</b>

<sup>1</sup> CATA owns the Multimodal Gateway building but does not own the land on which it is built.

<sup>2</sup> CATA does not own the land at the MSU-CTC but is responsible for maintain the parking ramp and waiting area.

# 3 ASSESSMENT OF ASSET CONDITION AND PERFORMANCE

## 3.1 INTRODUCTION

The FTA Final Rule 49 USC 625 requires that all TAM Plans include a condition assessment of all assets for which an agency has direct capital responsibility. The Final Rule also establishes state of good repair (SGR) performance measures for capital assets and requires agencies to set performance targets for each of these measures. These performance measures are to help agencies determine the extent to which an asset is in a state of good repair. The Final Rule defines an asset in a state of good repair as one that meets the following standards:

- “The asset is able to perform its desired function;
- The use of the asset in its current condition does not pose an identified unacceptable safety risk; and
- The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.”

Assets not in a state of good repair increase safety risks, decrease system reliability, increase maintenance costs and lower overall system performance.

This TAM Plan includes both an assessment of **asset condition** and **calculation of asset performance** required for annual National Transit Database (NTD) reporting. Asset condition is evaluated using the Transit Economic Requirements Model (TERM) Lite scale. Asset performance is calculated using the FTA established performance measures for the three applicable asset categories.

The sections that follow summarize the condition and performance of CATA's assets.

## 3.2 ASSET CONDITION

### 3.2.1 Previous Work

In February 2018, CATA employed the services of an independent contractor to perform a fleet condition audit and evaluate its maintenance practices. The primary purpose of the assessment was to identify and report safety needs, to investigate reported problems with parts availability, to identify any staffing shortfalls, and to determine if maintenance best practices were being used by the agency. The results of the inspections provided a baseline for improving vehicle maintenance and service quality. Overall, 128 vehicles were inspected and maintenance records for the associated vehicles were reviewed. The vehicles inspected comprised cutaways, 40 ft buses (hybrid and diesel), 60ft articulated hybrid buses, and 28ft trolleys.

The field inspectors assessed the physical conditions of the vehicles, drew fluid samples, and conducted limited test drives. The results of the fleet audit were shared with the CATA management and maintenance staff. The contractor also provided recommendations and other general observations. Since then, CATA's maintenance team has continued to work towards improving the overall vehicle condition.

### 3.2.2 Condition Assessment Methodology

For this TAM Plan, condition was assessed for all assets owned by CATA including those for which CATA has direct capital responsibility. The FTA TAM/NTD crosswalk shown in Table 3-1 served as a guide for selecting asset categories required in the TAM Plan. The condition assessment methodology for vehicles differed from that for stations and facilities. However, all assets were rated on the 1-5 FTA TERM Lite scale shown in Table 3-2.

**Table 3-1: TAM/NTD Crosswalk**

Assets	TAM Plan Inventory	TAM Plan Condition Assessment	NTD Inventory & Condition Submittal	SGR Targets
<b>Revenue Vehicles</b>				
Owned	Yes	Yes	Yes	Yes
Direct Capital Responsibility	Yes	Yes	Yes	Yes
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	Yes	Yes	Yes	Yes
3 <sup>rd</sup> Party Owned (No Direct Capital Responsibility)	Yes	No	Yes*	No
<b>Equipment: Non-Revenue Vehicles</b>				
Owned	Yes	Yes	Yes	Yes
Direct Capital Responsibility	Yes	Yes	Yes	Yes
3 <sup>rd</sup> Party Owned	No	No	No	No
<b>Equipment over \$50,000 in Acquisition Value</b>				
Owned	Yes	Yes	No	No
Direct Capital Responsibility	Yes	Yes	No	No
3 <sup>rd</sup> Party Owned	No	No	No	No
<b>Equipment</b>				
Under \$50,000 in Acquisition Value	No	No	No	No
<b>Facilities</b>				
Owned	Yes	Yes	Yes	Yes
Direct Capital Responsibility	Yes	Yes	Yes	Yes
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	Yes	Yes	Yes	Yes
3 <sup>rd</sup> Party Owned (No Direct Capital Responsibility)	Yes	No	Yes**	No

Source: Frequently Asked questions: TAM/NTD Crosswalk. Available at <[www.transit.dot.gov](http://www.transit.dot.gov)>

\*Representative vehicles

\*\*Yes, only for passenger facilities

**Table 3-2: FTA TERM Rating Scale**

TERM Rating	Condition	Description
Excellent	5	No visible defects, near-new condition
Good	4	Some slightly defective or deteriorated components
Adequate	3	Moderately defective or deteriorated components
Marginal	2	Defective or deteriorated components in need of replacement
Poor	1	Seriously damaged components in need of immediate repair

As stated previously, the condition rating methodology for vehicles differed from those for facility and station assets. Vehicle condition was estimated using the TERM Lite asset decay functions, which are a function of vehicle type, useful life, and age.

Condition ratings for facility and station assets were developed by field evaluations in accordance with the FTA TAM Facility Performance Measure Reporting Guidebook. In October 2018, onsite evaluations were conducted for each facility and station asset listed in the asset inventory. Interviews with the CATA Facilities Manager were also conducted for input regarding day-to-day issues, problem areas, and access to facility records. As-built plans for assets were also reviewed to finalize asset identification and augment the data collected. This included information on renewals/ongoing maintenance to identify any recent replacements and upgrades of facility subcomponents. Field evaluations involved

hands-on inspections of assets and engineering judgement to identify whether further evaluation or investigations were needed.

The condition assessments addressed the following subcategories and elements:

- **Facilities:**
  - *Access and Parking:* Site (asphalt and concrete)
  - *Building Components:* Access and parking, boilers, electrical systems, elevators and conveying systems, exterior, fire alarms, generators, HVAC, interiors, plumbing, roof, and other components
  - *Maintenance Equipment:* Air compressors, brake lathe, bus washers, hoists, lifts and miscellaneous bus equipment
- **Stations:**
  - *Access:* Parking lot
  - *Building Components:* Electrical, exterior, fire alarms, HVAC interiors, lighting, plumbing, roof, attendant booth, furniture
  - *Signage and graphics:* Electronic signage

Results of the condition assessments were documented in field data collection sheets and photographs, which identified the locations of deficiencies; the sheets also summarized the condition of the inspected CATA assets.

Each CATA facility and station was therefore rated at the subcomponent level using the TERM Rating Scale. Sub-component ratings were subsequently aggregated to calculate an overall condition rating for each facility using a weighted average method. Final condition station ratings were calculated in the following manner:

$$Facility\ Rating = \frac{\sum(Subcomponent\ TERM\ Score \times Subcomponent\ Replacement\ Costs)}{\sum(Subcomponent\ Replacement\ Costs)}$$

### 3.2.3 Summary of Results

Table 3-3 summarizes the distribution of asset value by condition rating for the different types of CATA assets. The results show that the majority (64%) of CATA’s asset value is concentrated on assets rated at a 3.0 or higher, which means that more than half of CATA’s capital assets are in adequate, good or excellent condition. Conversely, 35% of the total asset value is concentrated on assets with condition ratings of less than 3.0 and therefore in marginal or poor condition.

It is worth noting that, by default, the TERM Lite decay curves used in the condition calculation for vehicles are set to reach the useful life of an asset at a rating of 2.5. Therefore, some assets rated as being in marginal condition may not yet have reached their useful life.

**Table 3-3: Distribution of CATA Assets by Condition Rating and Replacement Cost\* (\$000s)**

Asset Type	5.0	4.9 - 4.0	3.9 – 3.0	2.9 – 2.0	1.9 – 1.0	Total
Facilities	\$0	\$15,059	\$16,220	\$2,777	\$0	\$34,055
Stations	\$0	\$5,615	\$806	\$347	\$0	\$6,768
Revenue Vehicles	\$0	\$5,424	\$34,678	\$16,145	\$22,998	\$79,244
Non-Revenue Vehicles	\$23	\$369	\$114	\$186	\$570	\$1,261
<b>Total</b>	<b>\$23</b>	<b>\$26,466</b>	<b>\$51,817</b>	<b>\$19,454</b>	<b>\$23,568</b>	<b>\$121,329</b>
<b>Percent of Total</b>	<b>0.0%</b>	<b>21.8%</b>	<b>42.7%</b>	<b>16.0%</b>	<b>19.4%</b>	<b>100.0%</b>

\*All costs are in 2018 dollars

Table 3-4 provides a further breakdown of vehicle condition rating and replacement cost for revenue and non-revenue vehicles. Vehicle ULBs are reached at a TERM condition rating of 2.5. Thus, vehicles with a rating at or less than 2.5 automatically enter the SGR backlog. Approximately 50% of CATA's vehicle assets are in adequate condition or better based on the TERM scale.

**Table 3-4 Distribution of Vehicles by Condition Rating and Replacement Cost (\$000s)**

Vehicle Type	5.0	4.9 - 4.0	3.9 – 3.0	2.9 – 2.0	1.9 – 1.0	Total
Bus	\$0	\$4,957	\$33,694	\$9,863	\$22,674	\$71,187
Trolleybus	\$0	\$0	\$0	\$867	\$0	\$867
Vans, Cutaways and Autos	\$0	\$467	\$984	\$5,414	\$324	\$7,190
Car	\$23	\$369	\$0	\$51	\$252	\$695
Truck	\$0	\$0	\$114	\$135	\$318	\$567
<b>Total</b>	\$23	\$5,792	\$34,792	\$16,331	\$23,568	\$80,506
<b>Percent of Total</b>	<b>0.0%</b>	<b>7.2%</b>	<b>43.2%</b>	<b>20.3%</b>	<b>29.3%</b>	<b>100.0%</b>

\*All costs are in 2018 dollars

Table 3-5 provides further details for vehicle condition showing a summary of vehicle counts by condition rating and replacement cost for revenue and non-revenue vehicles. Vehicle ULBs are reached at a TERM condition rating of 2.5.

**Table 3-5 Distribution of Vehicle Counts by Condition Rating and Replacement Cost (\$000s)**

Vehicle Type	5.0	4.9 - 4.0	3.9 – 3.0	2.9 – 2.0	1.9 – 1.0	Total
Bus	0	7	44	12	43	106
Trolleybus	0	0	0	2	0	2
Vans, Cutaways and Autos	0	12	11	78	3	104
Car	1	15	0	2	8	26
Truck	0	0	2	4	4	10
<b>Total</b>	1	34	57	98	58	248
<b>Percent of Total</b>	<b>0.4%</b>	<b>13.7%</b>	<b>23.0%</b>	<b>39.5%</b>	<b>23.4%</b>	<b>100.0%</b>

\*All costs are in 2018 dollars

### 3.3 ASSET PERFORMANCE AND TARGETS

The Final Rule establishes state of good repair (SGR) performance measures for capital assets to be used by agencies in target setting. Asset performance for CATA assets was therefore calculated using the FTA established performance measures for the three applicable asset categories:

- **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. The NTD lists 23 types of rolling stock with targets set for each mode an agency has in its inventory.
- **Equipment:** (non-revenue) service vehicles. The performance measure for non-revenue vehicles (including support and maintenance vehicles) is the percentage of those vehicles that have either met or exceeded their ULB. The FTA only requires three classes of non-revenue service vehicles to be reported for target setting: (1) *automobiles*, (2) *other rubber tire vehicles*, and (3) *other steel wheel vehicles*.
- **Facilities:** The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale. Four types of facilities are reported to NTD, but only two groups are used for target setting: (1) *administrative and maintenance*, and (2) *passenger and parking*.

The Useful Life Benchmark or ULB is the expected useful life or the acceptable period of use in service for a capital asset, as determined by a transit provider based on an analysis of their data. The FTA also provides default ULBs, which represent the maximum useful life, based on the TERM model and may be used by agencies in calculating asset performance. Table 3-4 summarizes the current asset performance for CATA assets and establishes the FY19 performance targets for NTD reporting.

As shown, the average age for CATA vehicles either is close to the ULB or has already exceeded the stated ULB (as in the case of equipment vehicles). In general, maintaining vehicles at an average age that is half the average ULB ensures that vehicles are replaced on time with minimal impact on service. For example, a vehicle fleet with a 12-year ULB can be kept at average fleet age of six years. CATA's demand response fleet is generally younger than its motor bus fleet due to the shorter ULBs.

In terms of current performance, CATAs motor bus fleet (i.e., fixed route) has a rating of 48% beyond useful life. This means that nearly half of CATA's motor bus fleet have either reached or exceeded their designated useful lives. On the other hand, the demand response fleet has relatively younger vehicles making the current performance rating 26% beyond useful life. The vehicle equipment (non-revenue vehicles) assets have a 50% beyond useful life performance rating, with the oldest vehicles being assets classified as trucks and other rubber tire vehicles (this includes pick-up trucks, sports utility vehicles, vans, and minivans). Finally, none of CATA's whole facilities are rated below a 3.0 on the FTA TERM Scale, therefore, the current performance is 0% for all whole facilities, meaning that all of CATA's three facilities are in a state of good repair.

Based on the investment prioritization and subsequent planned asset investments, the FY19 targets presented in Table 3-6 were calculated.

**Table 3-6: FTA TAM Performance Measures and FY19 Targets for CATA**

Category	Asset Class	Quantity	Average ULB (Yrs.)	Average Age (Yrs.)	Total Exceeding ULB	Current Performance	FY19 Performance Targets
<b>Rolling Stock</b>	<b>Motor Bus</b>	<b>105</b>	<b>12.0</b>	<b>10.0</b>	<b>50</b>	<b>48%</b>	<b>26%</b>
	Articulated Bus (AB)	12	12.0	12.5	7	58%	25%
	Bus (BU)	91	12.0	9.6	43	47%	26%
	Trolleybus (TB)	2	12.0	9.0	0	0%	0%
	<b>Demand Response</b>	<b>107</b>	<b>5.6</b>	<b>4.5</b>	<b>28</b>	<b>26%</b>	<b>0%</b>
	Bus (BU)	3	10.7*	8.7	0	0%	0%
	Cutaway (CU)	51	7.0	6.0	18	35%	0%
	Minivan (MV)	53	4.0	2.8	10	19%	0%
	<b>Rolling Stock Total</b>	<b>212</b>	<b>8.8</b>	<b>7.2</b>	<b>78</b>	<b>37%</b>	<b>12%</b>
<b>Equipment</b>	Automobiles	26	4.0	4.1	10	38%	15%
	Trucks and Other Rubber Tire Vehicles	10	5.0	7.0	8	80%	80%
	<b>Equipment Total</b>	<b>36</b>	<b>4.3</b>	<b>4.9</b>	<b>18</b>	<b>50%</b>	<b>33%</b>
Category	Asset Class	Quantity	Average TERM Rating (1-5)	Average Age (Yrs.)	Facilities Below 3.0 TERM Rating	Current Performance	FY19 Performance Targets
<b>Facilities</b>	Passenger / Parking	3	3.8	11.1	0	0%	0%
	Administrative / Maintenance	1	3.4	15.1	0	0%	0%
	<b>Facilities Total***</b>	<b>4</b>	<b>3.4</b>	<b>14.0</b>	<b>0</b>	<b>0%</b>	<b>0%</b>
<b>Grand Total</b>		<b>252</b>	<b>-</b>	<b>11.2**</b>	<b>96</b>	<b>38%</b>	<b>15%</b>

\* ULB for DR Buses differs by vehicle length (i.e., 7 yrs. and 12 yrs.)

\*\* Average age for all assets is weighted by replacement value

\*\*\* Condition rating represents whole facilities below 3.0, not facility subcomponents

# 4 DECISION SUPPORT TOOL

## 4.1 INTRODUCTION

This section describes the decision support process for the allocation of CATA's capital investments. It includes a discussion of the agency's needs with regard to allocating limited resources and prioritizing capital investment projects to achieve CATA's objectives. Therefore, this section discusses recommendations for the selection and implementation of a decision support tool.

Additionally, an initial decision support tool used in facilitating the submission of the TAM Plan is presented and described. The process for performing a state of good repair analysis, and the overall tool's methodology are described in **Section 4.3 SGR Analysis Process and Methodology**.

## 4.2 DECISION SUPPORT TOOL NEEDS ASSESSMENT

The purpose of the decision support tool is to optimize the allocation of limited resources and prioritize capital investments. CATA's perspective on achieving this objective was not limited to software, but also, a clear methodology and business processes that support the achievement of CATA's TAM objectives. A needs assessment was conducted to help develop a framework for such a tool.

CATA explicitly identified its needs and expressed interest in a decision support tool and process that could address the following:

- Optimize the prioritization of proposed capital projects and allocation of limited resources, at both the agency level and for individual departments
- Already be fully functioning at one or more existing business entities, preferably a transportation service provider
- Representative of the prevailing technology available on the market today
- Incorporate both quantitative and qualitative information
- Allow for collaboration by multiple stakeholders throughout the CATA organization
- Aid in improving evaluation criteria/weights for prioritizing goals, objectives, and capital projects, in line with existing legislation
- Model multi-year resource allocation scenarios
- Fully compatible with CATA's existing technology infrastructure
- Allow CATA staff to independently operate the tool following appropriate training
- User friendly in both its implementation and ongoing operation
- Support decision making at different levels of the organization

Further discussions with CATA revealed details on specific needs for their asset management system. These include:

- Long-term fleet planning
- Bus mileage and servicing data collection
- Bus parking mapping
- Fleet data access improvements

Following this, specific recommendations and strategies were identified to address CATA's asset management system needs, including specifications for a decision support tool. This is detailed under *Asset Management System Improvements* in **Section 6 Implementation Strategy**.

## 4.3 SGR ANALYSIS PROCESS AND METHODOLOGY

An SGR analysis was conducted to evaluate the capital investment needs for CATA assets and to prioritize the identified needs based on the previously defined criteria. The Transit Economic Requirements Model (TERM Lite) was selected to carry out this analysis and to meet all federal requirements for the TAM Plan.

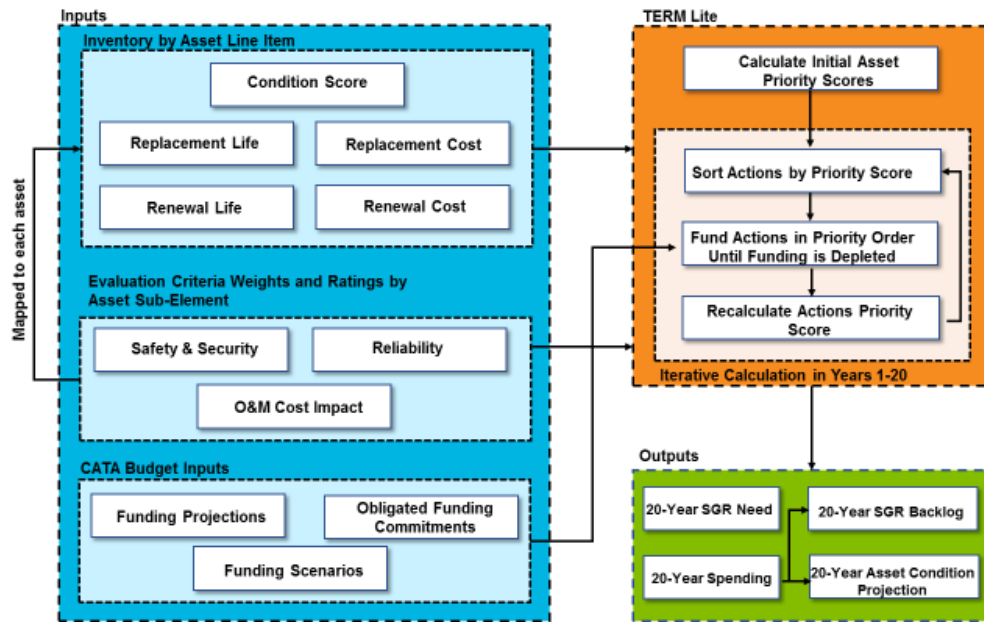
The TERM Lite tool runs on a Microsoft Access platform and allows users to evaluate and prioritize the lifecycle costs for transit assets. Table 4-1 compares CATA's stated decision support tool needs and TERM Lite capabilities.

**Table 4-1 Decision Support Tool for CATA Needs and TERM Lite Capabilities**

CATA Need	Capability	Notes
Optimize the prioritization of proposed capital projects and allocation of limited resources, at both the agency level and for individual departments / Support decision making at different levels of the organization	✓	Provided appropriate attribute information is included to asset line items
Already be fully function at one or more existing business entities; preferably a transportation service provider	✓	Developed by the FTA
Representative of the prevailing technology available on the market today	✓	Other technology available with broader transit asset management capabilities
Incorporate both quantitative and qualitative information	-	Analyses can only be conducted on quantitative data
Allow for collaboration by multiple stakeholders throughout the CATA operation	-	Access database platform used only allows single user
Aid in improving evaluation criteria/weights for prioritizing goals, objectives and capital projects, in line with existing legislation	✓	Uses fixed set of criteria and allows one user-defined criterion
Model multi-year resource allocation scenarios	✓	Can model 20-year and 30-year scenarios only
Fully compatible with CATA existing technology infrastructure	✓	Potential to use exports from existing CATA EAM system, although some post processing may be required
Allow CATA staff to independently operate the tool following appropriate training	✓	Staff can be trained
User friendly in both its implementation and ongoing operation	✓	User friendly and requires minimal knowledge of Microsoft Access

Figure 4-1 summarizes the SGR analysis process used in TERM Lite. The sections that follow provide a general description of the analysis process.

Figure 4-1 State of Good Repair Analysis Process



### 4.3.1 TERM Lite Inputs

TERM Lite required the following three primary inputs to run the SGR analysis:

- Asset inventory and asset type data
- Evaluation criteria
- Budget constraints

#### 4.3.1.1 Asset Inventory and Asset Type Data

The asset inventory included the following data fields for each line item, based on field observations, professional judgment, and industry standards:

- **Replacement life:** Determined using CATA standards and TERM Lite recommended values.
- **Condition rating:** A combination of field observations and professional judgment was used to determine the asset condition ratings. The condition assessment process is described in *Section 3 Assessment of Asset Condition and Performance*.
- **Replacement cost:** CATA and industry standards were applied to assign weighted replacement costs to all assets.
- **Renewal cost:** For applicable assets, these costs were assigned to asset types as a percentage of asset replacement costs. These percentages were linked to each asset based on asset type.
- **Renewal life:** For applicable assets, these costs were assigned to asset types as a percentage of assets replacement life. These percentages were linked to each asset based on asset type.

Each of the CATA asset line items included in the inventory was categorized into one of the 600 asset sub-elements applied in TERM Lite. These sub-elements were arranged in a hierarchy summarized below:

- **Asset category:** The five asset categories in TERM Lite are facilities, guideway elements, stations, systems, and vehicles. Of these, three were applicable to CATA's assets: facilities, stations, and vehicles.
- **Asset subcategory:** The five asset categories were further broken out into 32 subcategories.

- **Asset element:** The 32 subcategories were further broken out into a total of 152 elements.
- **Asset sub-element:** The 152 elements were further broken out into a total of 600 sub-elements.

Note that the CATA asset inventory does not include assets in every one of the 600 asset sub-elements. (The asset classification in TERM Lite was created to be comprehensive for all transit agencies nationwide, including modes not operated by CATA).

### 4.3.1.2 Evaluation Criteria

TERM Lite is capable of prioritizing asset investments using the following criteria:

- **Asset Condition:** Based on age. Declining condition yields higher prioritization score
- **Reliability:** Reduced risk of service failures/disruptions
- **Safety/Security:** Reduced risk of injuries, fatalities, and property damage
- **O&M Costs:** Impact on operating and maintenance costs
- **User Defined:** Defined based on impact of reinvestment by asset type

Detailed descriptions of the evaluation criteria weights and ratings are provided under the priority score calculation description in **Section 4.3.2 TERM Lite Analysis**.

### 4.3.1.3 Annual Budget Constraints

SGR analyses in TERM Lite can be run under financially constrained and financially unconstrained scenarios. Results of the unconstrained and constrained analyses ran on CATA assets are described in **Section 5 Investment Prioritization**. Useful scenarios that can also be applied in TERM Lite are shown in Table 4-2.

**Table 4-2 Useful TERM Lite Analysis Scenarios**

Scenario	Purpose/Value
Maintain Current Spending	SGR backlog and prioritization impact of reinvesting at the current (historical) rate
Maintain Backlog	Level of investment that will maintain current size of backlog (either in dollar terms or as a percent of all asset holdings)
SGR in 20 Years	Level of annual reinvestment required to eliminate SGR backlog in 20 years
Unconstrained	Average annual reinvestment if there was no backlog
“Planned” or “Budgeted”	Impact of planned year by year funding amounts on future SGR backlog

## 4.3.2 TERM Lite Analysis

This section describes the TERM Lite analysis process which includes the calculation and sorting of priority scores, funding actions, and finally, aging assets and recalculating priority scores. The section describes the tool's analysis capabilities and options available for defining different analysis scenarios. The specific options selected for analyzing investment options for CATA's assets are described in **Section 5 Investment Prioritization**.

### 4.3.2.1 Step 1: Calculate Priority Scores

TERM Lite first assigns a set of ratings to each asset class on a scale from five (most impact) to one (least impact). As shown in Figure 4-2, the model applies these ratings to the weights described below to calculate an initial set of asset priority scores on a scale of 100 (highest priority) to zero (lowest priority), (including fractional values). The priority

scores are used to sort all asset line items by priority to identify the assets in most need of investment in a budget-constrained scenario.

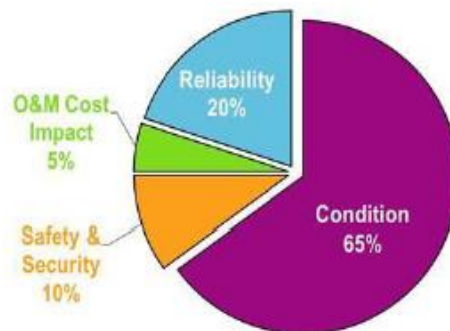
**Figure 4-2 Multi-Criteria Decision Analysis Capability in TERM Lite**



The four standard evaluation criteria used to calculate asset priorities are then weighted using either the default weights in TERM Lite or CATA-specific weights. A user-defined criterion may also be defined in TERM Lite based on CATA's experience or priorities. In that case, all five weights used should add up to 100%. For this TAM Plan, TERM Lite was set to apply 100% of the weights to asset condition.

Figure 4-3 summarizes TERM Lite's default weights. The subsequent sections describe the evaluation factors used in TERM Lite for the SGR analysis.

**Figure 4-3 Asset Evaluation Factors and Weights**



**Asset Condition**

As applied in TERM Lite, asset condition is a function of age and asset type and differs from the condition ratings observed through field observations (conducted prior to the SGR analysis). The asset decay curves used in calculating asset condition ratings for all assets vary by an asset's useful life. New assets are assigned ratings of 5.0 and decay to a rating of 1.0, based on useful life. These curves are calibrated to trigger asset renewal at a rating of 2.5 (i.e., the end of an asset's useful life). In the case of CATA's assets, initial useful life values for facility and station subcomponents were adjusted until the resulting ratings were within ten percent of the observed field conditions. The condition priority score calculation is as follows:

$$Asset\ Condition\ Priority\ Score = 6 - Condition\ Rating$$

For example, a new asset with a condition rating of 5.0 would have a condition priority score of 1.0, while a highly deteriorated asset with a condition rating of 2 would have a high condition priority score of 4. Table 4-3 is a summary of the relationship between an asset's condition rating and its condition priority score.

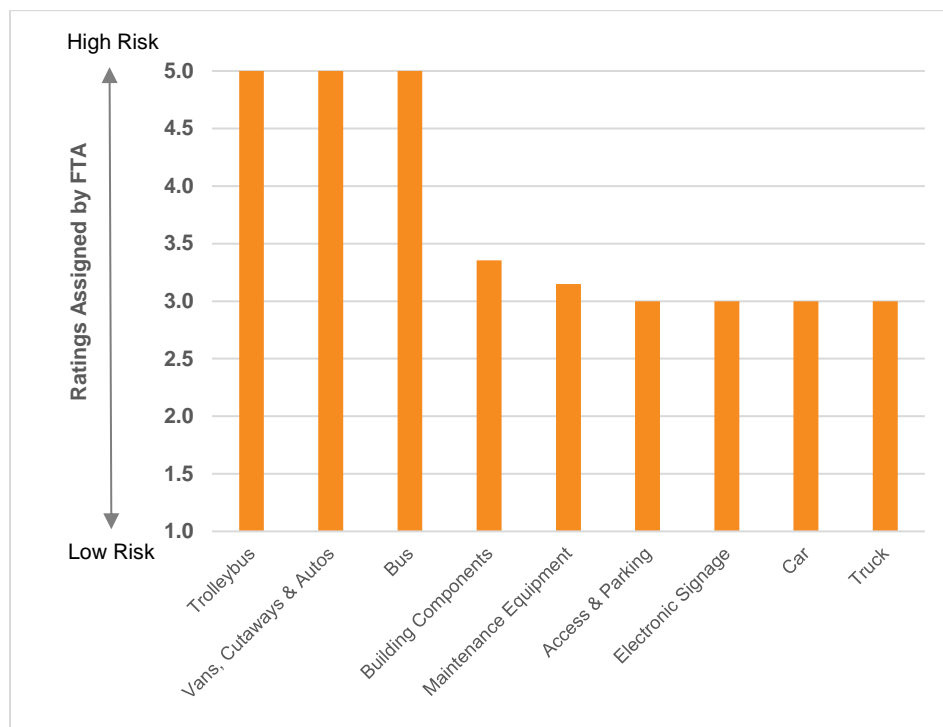
**Table 4-3 Summary of Condition Ratings and Condition Priority Scores**

Description	Condition Rating	Condition Priority Score
Excellent	5	1
Good	4	2
Adequate	3	3
Marginal	2	4
Poor	1	5

**Safety and Security**

The default weight for the safety and security risk rating is 10 percent of an asset's total priority score. Figure 4-4 summarizes the safety and security risk ratings of the nine element types included in the CATA inventory. Each of the 600-asset category/ subcategory/element/sub-element types included in TERM Lite has a default safety and security risk rating that is a whole number between 1 and 5. In Figure 4-4, these ratings were calculated into an average rating.

**Figure 4-4 Safety and Security Risk Ratings by Asset Type**



The priority score for safety and security is:

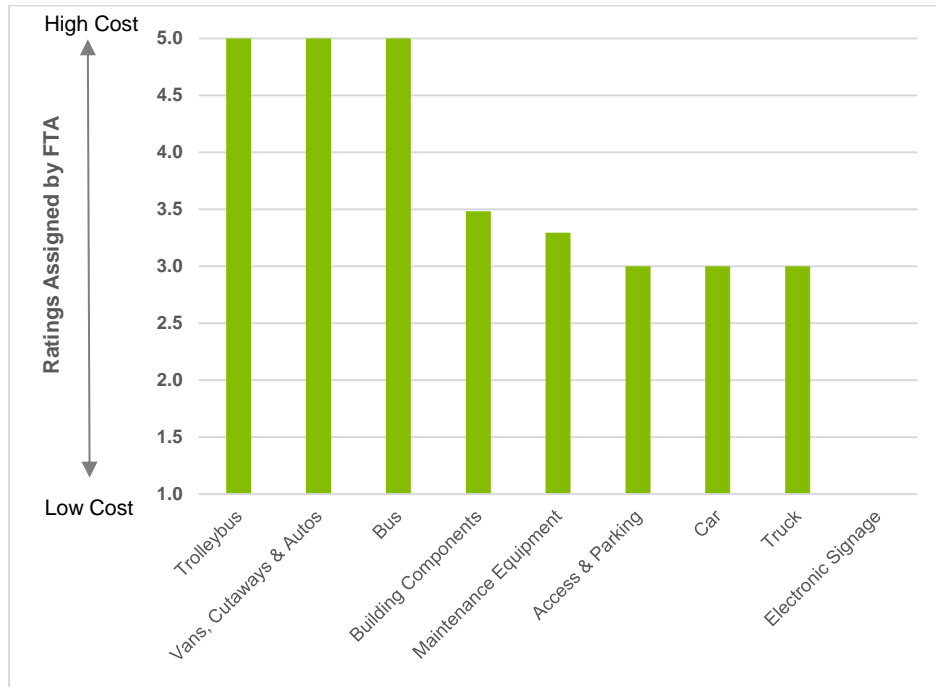
$$Safety\ and\ Security\ Priority\ Score = \frac{Safety\ and\ Security\ Risk\ Rating \times Asset\ Condition\ Score}{5}$$

The safety and security priority score incorporates asset condition because safety risk is not static over the life of an asset. As an asset deteriorates, the safety risks increase.

**O&M Cost**

The default weight for the O&M cost impact rating is 5 percent of an asset's total priority score. Figure 4-5 summarizes the O&M cost impact ratings of the nine element types included in the CATA inventory. All 600-asset category/subcategory/element/sub-element types included in TERM Lite have an assigned O&M cost impact rating that is a whole number between 1 to 5. In Figure 4-5, these ratings were calculated into an average rating. The O&M cost impact priority score does not change over the life of an asset.

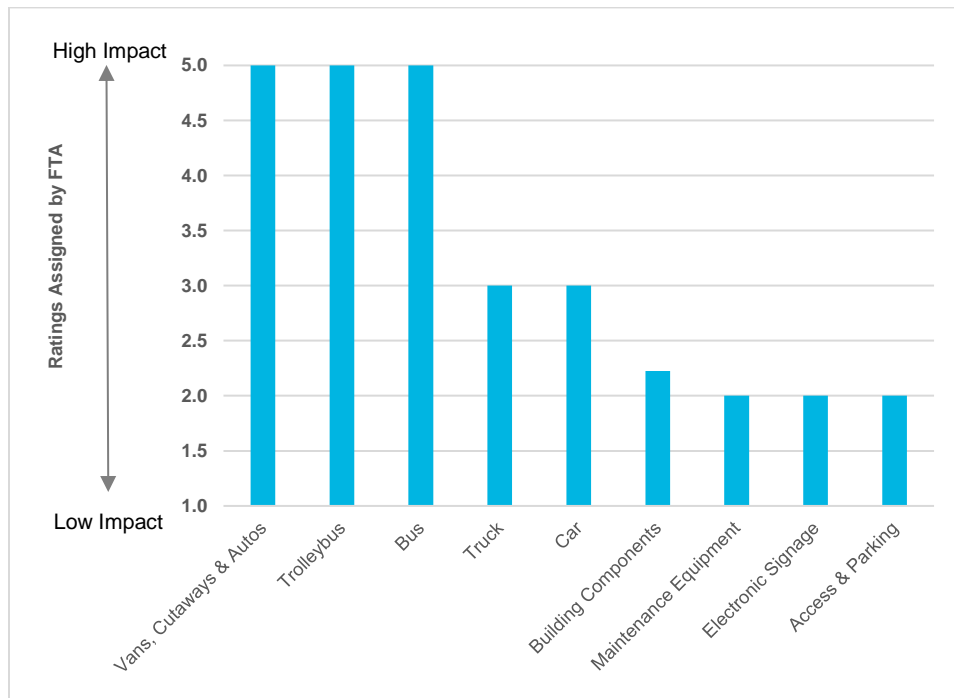
**Figure 4-5 O&M Cost Impact Ratings by Asset Element**



**Reliability**

The default weight for the reliability rating is 20 percent of an asset's total priority score. Figure 4-6 summarizes the reliability ratings of the element types included in the CATA inventory. Note that all 600-asset category/subcategory/element/sub-element types included in TERM Lite have an assigned reliability rating that is a whole number between 1 to 5. In Figure 4-6, these ratings were calculated into an average rating.

**Figure 4-6 Reliability Ratings by Asset Element**



The priority score for reliability is:

$$Reliability\ Priority\ Score = \frac{Reliability\ Rating \times Asset\ Condition\ Score}{5}$$

The reliability priority score incorporates the asset’s condition because asset reliability is not static over the life of an asset. As an asset deteriorates, its reliability decreases.

**Consolidated Asset Priority Score Calculation**

The consolidated priority score calculation for an asset in a given year is:

$$Priority\ Score = \frac{(Cond.\ Score \times 65) + (Safety/Security\ Score \times 10) + (O\&M\ Score \times 5) + (Reliability\ Score \times 20)}{5}$$

**4.3.2.2 Step 2: Sort Action by Priority Score**

Once the priority scores for all assets in the asset inventory are calculated in each analysis year, TERM Lite sorts the line items in descending order, from highest priority score to lowest priority score.

**4.3.2.3 Step 3: Fund Actions**

After the asset line items are sorted by priority score, TERM Lite applies a budget constraint (based on recent CATA capital plans) to fund actions in descending order of priority. In each analysis year, TERM Lite begins at the top of the list, allocating funds to replacement, renewal, and capital maintenance actions until funding runs out.

**4.3.2.4 Step 4: Age Assets and Recalculate Priority Scores**

Once all funding in each year is exhausted, TERM Lite ages the assets by 1 year. Assets that did not receive investments in the previous year will have a high-priority score due to their worsened condition. The model repeats Steps 1 through 3 in each year of the SGR analysis period.

**4.3.3 TERM Lite Outputs**

TERM Lite produces four primary outputs for the SGR analysis:

- **20-Year Annual SGR Needs:** This includes the total annual SGR needs, annual SGR needs by category, and annual SGR needs by subcategory. Note that a calculation of 20-year SGR need is not a direct output of TERM Lite. Therefore, an unconstrained scenario (i.e., a scenario with an effectively unlimited budget) is required. Because unconstrained spending equals total need, a spending output report, which is a direct output of the model, is used in place of a needs report.
- **20-Year Annual SGR Spending:** This includes the total annual SGR spending and annual SGR spending by asset type. Note that, unlike the 20-year SGR needs calculation, a 20-year spending report is a direct output of TERM Lite.
- **20-Year Annual SGR Backlog:** This includes the total initial SGR backlog, initial SGR backlog by asset type, change in SGR backlog over the analysis time frame, and change in SGR backlog by asset type.
- **20-Year Annual Asset Condition:** This includes the overall change in asset condition over the analysis period and the change in asset condition by asset type and location.

The results of the SGR analysis are described in **Section 5 Investment Prioritization**.

# 5 INVESTMENT PRIORITIZATION

## 5.1 INTRODUCTION

According to the FTA Final Rule, a TAM Plan must include an investment prioritization that identifies a provider's programs and projects (over the TAM Plan horizon period) intended to improve or manage the state of good repair of capital assets for which the provider has direct capital responsibility. The following must also apply for the investment prioritization:

- A provider must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year.
- A provider's project rankings must be consistent with its TAM policy and strategies.
- When developing an investment prioritization, a provider must give due consideration to those state of good repair projects that pose an identified unacceptable safety risk when developing its investment prioritization.
- When developing an investment prioritization, a provider must take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM Plan horizon period.
- When developing its investment prioritization, a provider must take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities.

The subsequent sections of this chapter outline CATA's investment prioritization process for its capital assets.

Table of investment prioritization by asset class by year can be found in Appendix B.

## 5.2 PRIORITIZATION PROCESS

The investment prioritization process followed the SGR analysis methodology described in **Section 4.3 SGR Analysis Process and Methodology**. TERM Lite was used to develop four funding scenarios, which provided analysis outputs for the SGR backlog for all assets as well as the 20-year expenditure needs for replacements and renewals.

Once the backlog and projected capital needs were estimated, potential constraints to meeting the needs were considered. The two potential constraints analyzed for CATA were funding and administrative constraints. These two were selected to ensure that the needed capital investments could be reasonably accommodated by CATA. Subsequently, list of prioritized projects needed to maintain a state of good repair was developed. These projects are summarized in **Section 5.5 Summary of Proposed Projects**. The detailed project lists can be found in **Appendix B**.

## 5.3 SGR BACKLOG

The total SGR backlog comprises the following two components:

- The total replacement value of assets that are beyond their useful lives
- The total renewal value of asset renewals that are past due

The total current SGR backlog is \$35.9M (2018\$) made up of 119 vehicle, facility and station assets. The asset category with the largest backlog is vehicles with a total of \$29.1M<sup>3</sup> in the backlog. This comprises approximately 81.0% of the current backlog. The total backlog for facilities is \$5.7M (15.8%) and the backlog for stations is \$1.1M (3.2%) (Figure 5-1).

---

<sup>3</sup> Existing backlog was calculated based on the assumption that 40 ft and 60 ft articulated hybrid buses would be replaced with diesel vehicles.

**Figure 5-1 Current SGR Backlog by Asset Category (Millions of 2018\$)**

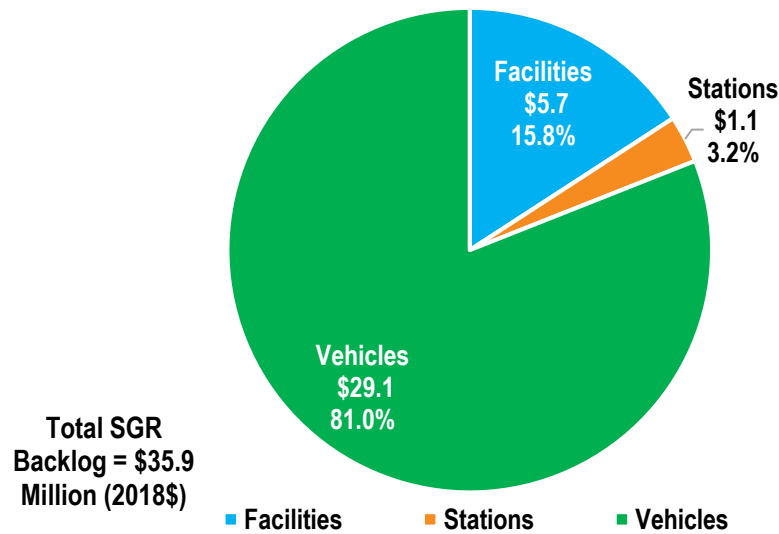


Table 5-3 shows a breakout of the current SGR backlog by detailed asset type. As stated previously, buses have the highest SGR backlog at \$26.0M. This is followed by maintenance equipment at \$3.0M and various facility subcomponents at \$2.7 M.

**Table 5-1 Current SGR Backlog by Detailed Asset Type**

Asset Type	Replacement Cost (Millions of 2018\$)
<b>Vehicles Total</b>	<b>\$29.1</b>
Buses	\$26.0
Trolley Bus	-
Vans, Cutaways and Autos	\$2.3
Non-revenue vehicles	\$0.8
<b>Stations</b>	<b>\$1.1</b>
Access	--
Building Components	\$1.1
Signage & Graphics	-
<b>Facilities</b>	<b>\$5.7</b>
Building Components	\$2.7
Maintenance Equipment	\$3.0
<b>Total</b>	<b>\$35.9</b>

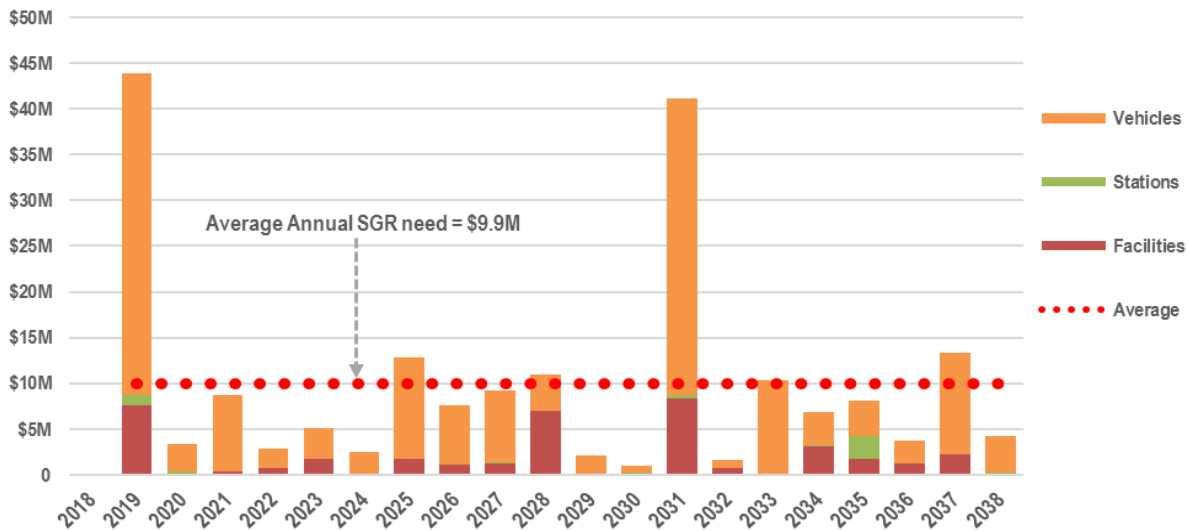
## 5.4 SGR NEEDS

Figure 5-2 shows the estimated annual SGR need by asset category for vehicles, stations and facilities, which comprises both capital replacements and renewals. The results show a total 20-year need of approximately \$198.9M<sup>4</sup>

<sup>4</sup> Total SGR need is estimated by running an unconstrained analysis scenario. It is assumed that funding is unlimited in any given year.

(2018\$) at an average annual need of \$9.9M. The chart shows two large capital investments needed in 2019 (\$43.9M) and 2031 (\$41.1M). Of the \$43.9M needed in 2019, asset backlog accounts for \$35.9M (81.9%).

**Figure 5-2 20-Year SGR Need - Unconstrained Scenario (Thousands of 2018\$)**



As stated in the **Section 5.3**, vehicle backlog makes up \$29.1M (81.0%) of the total backlog with majority of the cost arising from vehicles purchased between 2001 and 2005 (accounts for \$22.7M). As a result, the scheduled replacements for backlog vehicles with a 12-year ULB<sup>5</sup> causes another peak in 2031 SGR needs.

The unconstrained scenarios show immediate elimination of all backlogs. Although this may be unrealistic because of funding, project delivery, or other change constraints, it is a useful reference as it shows an ideal investment scenario.

Table 5-2 provides a summary of the estimated SGR need (replacements and renewals) by asset category for the TAM Plan horizon period. Over the four-year period, the greatest need is in the vehicle category followed by facilities and stations.

**Table 5-2 Estimated SGR Needs by Category for 2019 to 2022 (Thousands of 2018\$)**

Category/Element	2019	2020	2021	2022	Total
<b>Facilities</b>	<b>\$7,539</b>	<b>\$27</b>	<b>\$368</b>	<b>\$692</b>	<b>\$8,627</b>
Building Components	\$4,477	\$-	\$368	\$487	\$5,332
Maintenance Equipment	\$3,062	\$27	\$-	\$205	\$3,295
<b>Stations</b>	<b>\$1,136</b>	<b>\$363</b>	<b>\$-</b>	<b>\$-</b>	<b>\$1,499</b>
Building Components	\$1,136	\$363	\$-	\$-	\$1,499
Signage and Graphics	\$-	\$-	\$-	\$-	\$-
Access	\$-	\$-	\$-	\$-	\$-
<b>Vehicles</b>	<b>\$35,208</b>	<b>\$2,902</b>	<b>\$8,325</b>	<b>\$2,172</b>	<b>\$48,607</b>
Bus	\$30,266	\$1,349	\$6,052	\$1,620	\$39,288
Car	\$303	\$-	\$369	\$23	\$695
Heavy-Duty Van <sup>6</sup>	\$-	\$-	\$867	\$-	\$867
Truck	\$453	\$-	\$114	\$-	\$567
Vans, Cutaways and Autos	\$4,185	\$1,553	\$922	\$529	\$7,190
<b>Total</b>	<b>\$43,883</b>	<b>\$3,292</b>	<b>\$8,693</b>	<b>\$2,865</b>	<b>\$58,732</b>

<sup>5</sup> Useful Life Benchmark

<sup>6</sup> Future Trolleybus replacements will be heavy-duty vans.

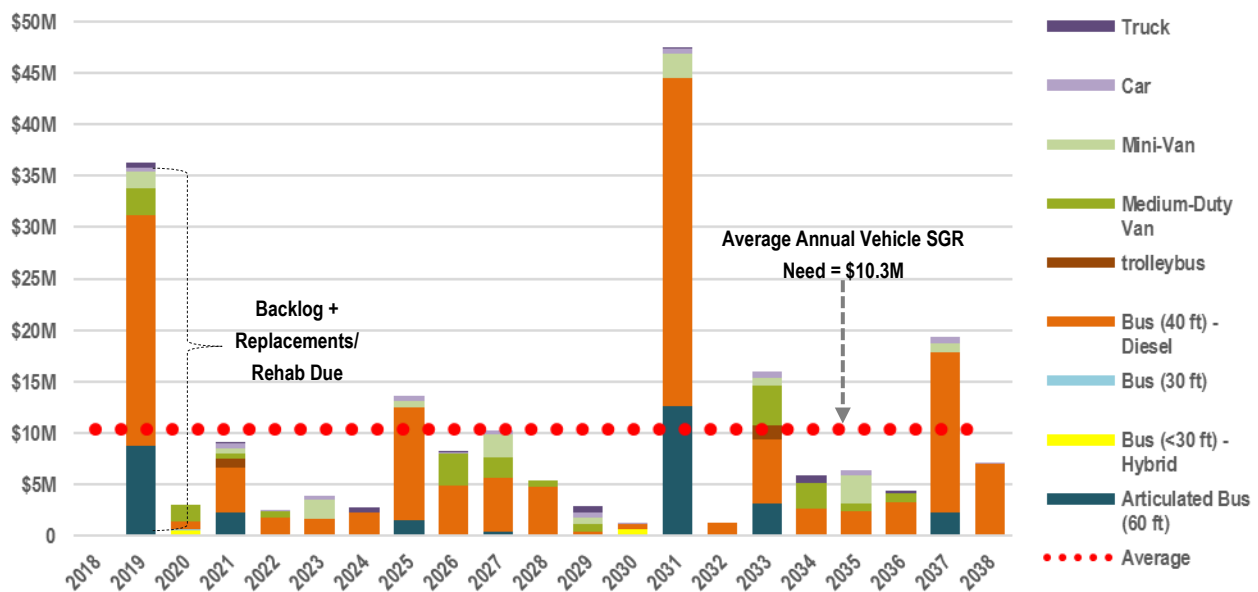
All subsequent detailed costs shown for the different categories are provided in year of expenditure dollars inflated at a 3% inflation rate.

## 5.5 SUMMARY OF PROPOSED PROJECTS

### 5.5.1 Vehicle Projects

A detailed look at the 20-year SGR need for vehicles only (Figure 5-3) shows a similar trend to Figure 5-2. With an average annual vehicle need of \$10.3M YOES (\$9.9M in 2018\$), CATA is set to experience two major peaks in 2019 and 2031. Replacement costs are shown in year of expenditure dollars, hence costs in 2031 and other years are inflated at 3% using 2018 as a base year.

**Figure 5-3 20-Year SGR Need for Vehicles (Unconstrained Scenario in YOES)<sup>7</sup>**

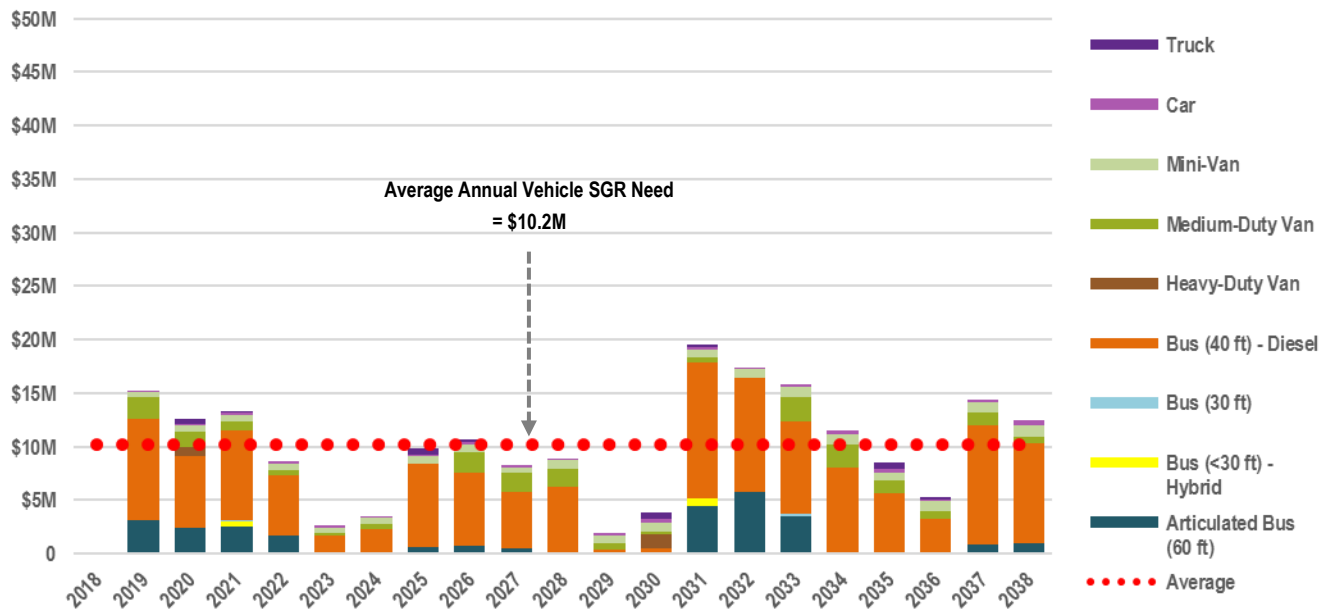


After evaluating the 20-year projected SGR needs, constrained investment prioritization analyses were conducted to evaluate the impact of four different capital investment scenarios. The four scenarios were analyzed by comparing the associated annual spending, annual backlog and annual limits on replacement vehicle intake. Of the four scenarios, the spending pattern in Figure 5-4 was selected as the recommended spending pattern from 2019 to 2038.

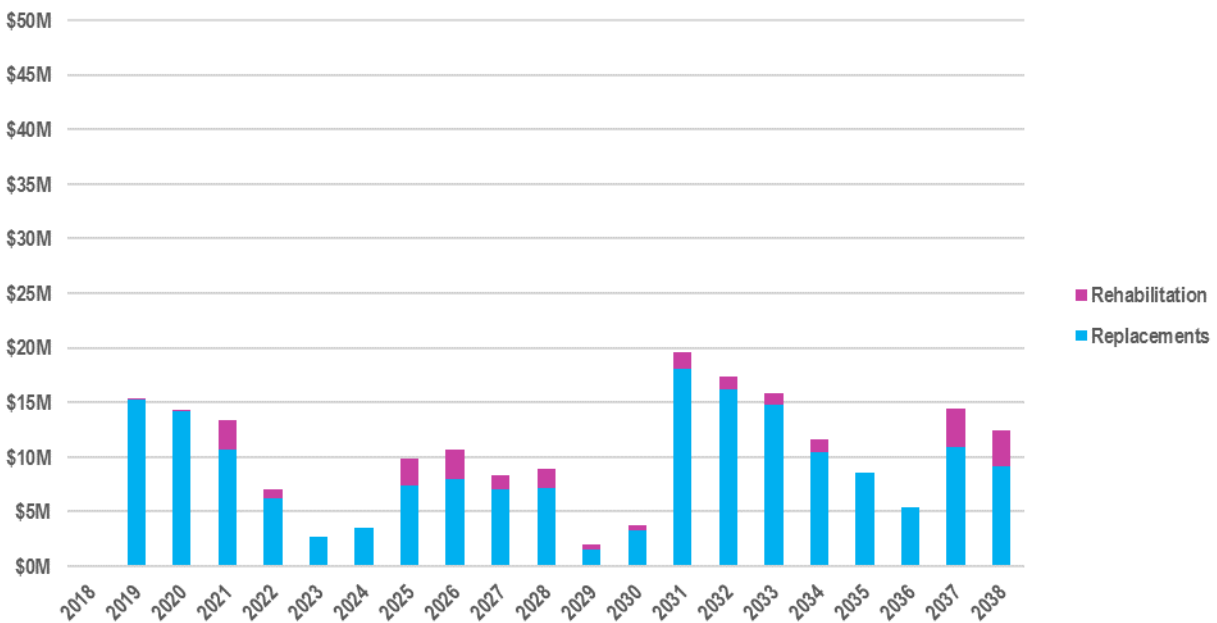
Figure 5-4 shows the total annual dollar values for vehicle replacements and rehabilitations expressed in year of expenditure dollars. It is worth noting that the spending projection excludes future hybrid purchases as CATA plans to replace the existing hybrid fleet with diesel vehicles.

<sup>7</sup> Costs shown in YOES dollars at a 3% inflation rate

**Figure 5-4 20-Year Projected Vehicle Investments (2019-2038)**



**Figure 5-5 Projected vehicle Expenditure Showing Rehabilitations and Replacements (2019-2038)**



The selected spending projection for 2019 to 2038 results in a clearance of the existing vehicle backlog by the end of 2020 as shown in Figure 5-6. Furthermore, with this spending projection, the backlog remains at zero from 2021 to 2038 thereby maintaining the vehicles in a state of good repair.

**Figure 5-6 Vehicle Backlog Associated with Projected Vehicle Investments**

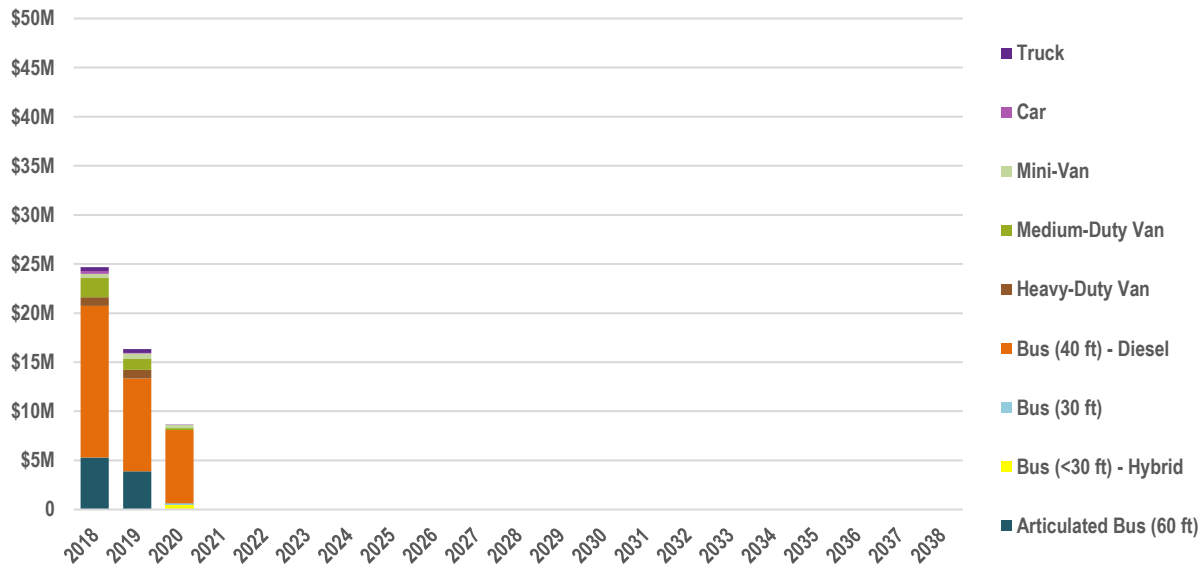


Table 5-5 provides details on the counts and costs for projected vehicle replacements for the TAM Plan horizon period. The table values do not include the cost for rehabilitations. CATA is projected to spend an average of \$11.6M (YOES) from 2019 to 2022 in vehicle replacements.

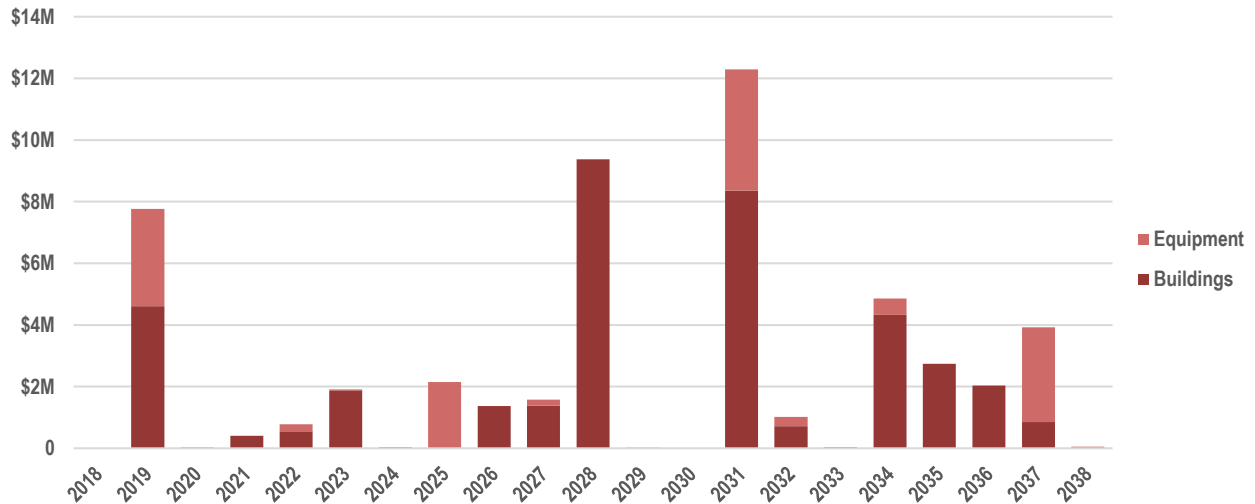
**Table 5-3 Total Vehicle Replacement Counts and Costs (2019 to 2022)**

Vehicle Type	Total Vehicle Replacements					Total Costs (\$000s YOE)				
	2019	2020	2021	2022	Total	2019	2020	2021	2022	Total
Articulated Bus (60ft)	4	3	3	2	12	3,108	2,401	2,473	1,698	9,681
Bus (<30 ft) - Hybrid			2		2	-	-	501	-	501
Bus (30 ft)			1		1	-	-	140	-	140
Bus (40 ft) - Diesel	19	13	11	9	52	9,455	6,663	5,807	4,894	26,819
Medium-Duty Van	19	14	8	4	45	2,050	1,442	824	419	4,735
Mini-Van	10	14	14	15	53	439	614	633	665	2,351
Heavy-Duty Van		2			2	-	920	-	-	920
Non-Revenue Vehicles	6	11	9	9	35	206	552	324	249	1,331
<b>Total</b>	<b>58</b>	<b>57</b>	<b>48</b>	<b>39</b>	<b>202</b>	<b>15,259</b>	<b>12,593</b>	<b>10,701</b>	<b>7,926</b>	<b>46,479</b>

## 5.5.2 Facility Projects

Figure 5-7 shows the 20-year SGR need for the facilities category. This was calculated by running an unconstrained funding scenario with replacements based on the estimated useful lives of the various facility components. This category is made up entirely of CATA's headquarters which is a combined administrative and maintenance facility.

**Figure 5-7 20-Year SGR Need for Facilities - Unconstrained Scenario (YOE\$)**



Due to high cost of projected needs and the higher constraints on capital funding for facilities, projects were prioritized with many considerations. For example, some projects were divided into multi-year projects. In addition, certain projects were annualized to provide investments over the entire lifecycle of that asset. Figure 5-8 shows the projects 20-year spending. The approximate maximum and minimum spending levels are \$2.2M in 2023 and \$0.3M in 2035 respectively (YOE). This is an average of \$1.2M per year (YOE) over the 20-year period. Overall, CATA will need to invest a total of \$19.9M in 2018 dollars over the 20-year period.

**Figure 5-8 20-Year Projected Facility Investments (2019-2038)**

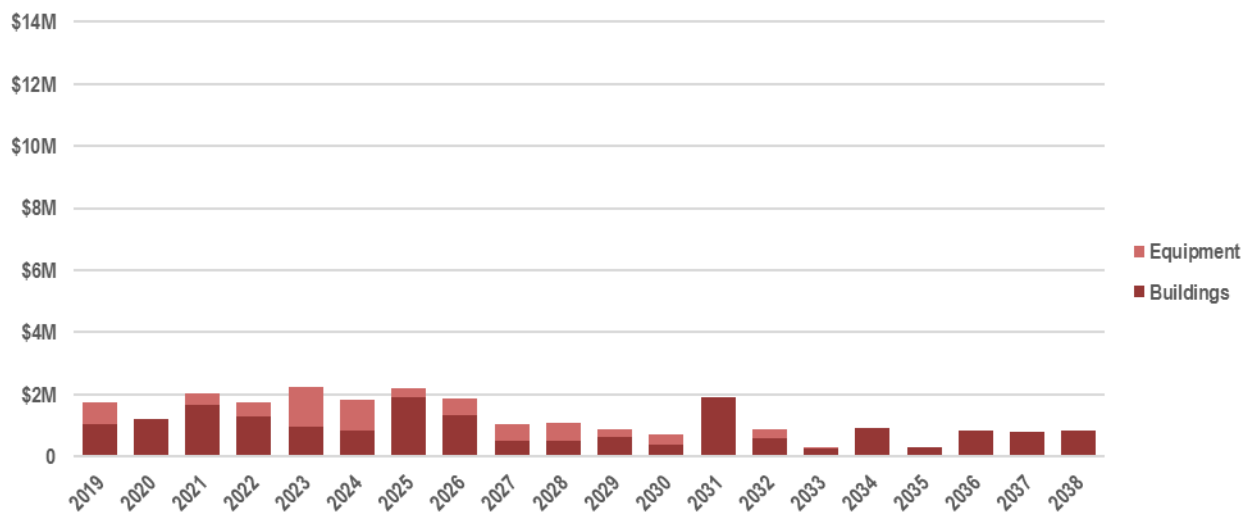


Table 5-4 shows the facility projects within the TAM Plan horizon with a condition rating of below 3.0 on the TERM scale. Costs shown are inflated at the 3.0% rate from 2018 as the base year.

A detailed project list for all facility sub components can be found in Appendix B.

**Table 5-4 Facility Projects with a TERM Rating Below 3.0 (2019-2022)<sup>8</sup>**

Description	Sub Component	ULB	Year Built	Total Costs (\$000s YOE)				
				2019	2020	2021	2022	Total
Maintenance - Site-Concrete	Buildings	20	1978	-	364	375	-	739
Maintenance – Mobile Lifts - Wired	Equipment	12	2004	153	-	-	-	153
Maintenance - Roof Membrane - Stg. Area Middle	Buildings	15	2001	-	-	545	561	1,106
<b>Total</b>				<b>153</b>	<b>364</b>	<b>920</b>	<b>561</b>	<b>1,997</b>

### 5.5.3 Station Projects

Station projects comprise station sub-components from the CATA Transportation Center (CTC), the Michigan State University (MSU) – Shaw Parking Ramp, and the Multimodal Gateway. Figure 5-9 shows the 20-year SGR need for station assets assuming unlimited spending. The charts are shown by station to provide better details on the individual station needs.

**Figure 5-9 20-Year SGR Need for Stations by Location - Unconstrained Funding Scenario (YOE\$)**

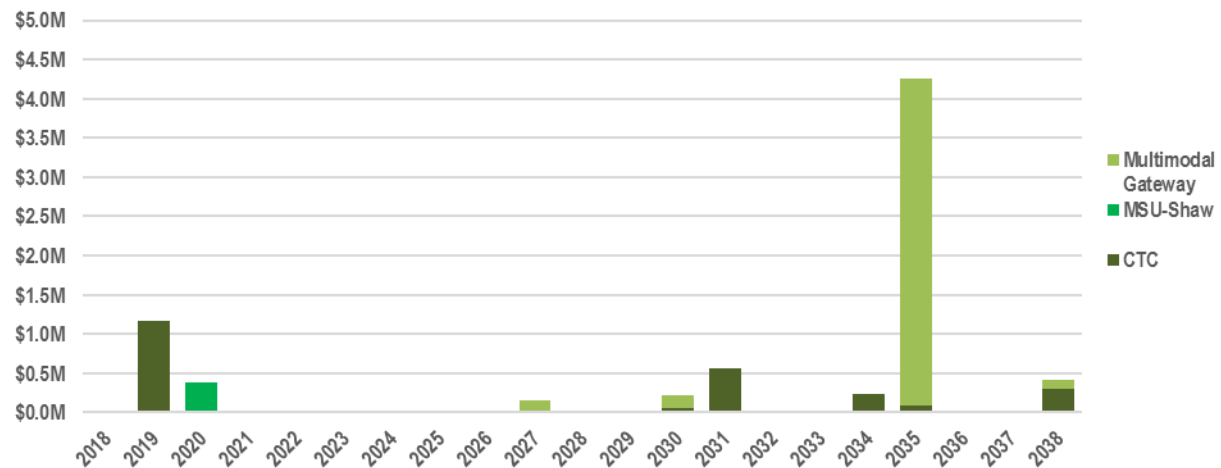
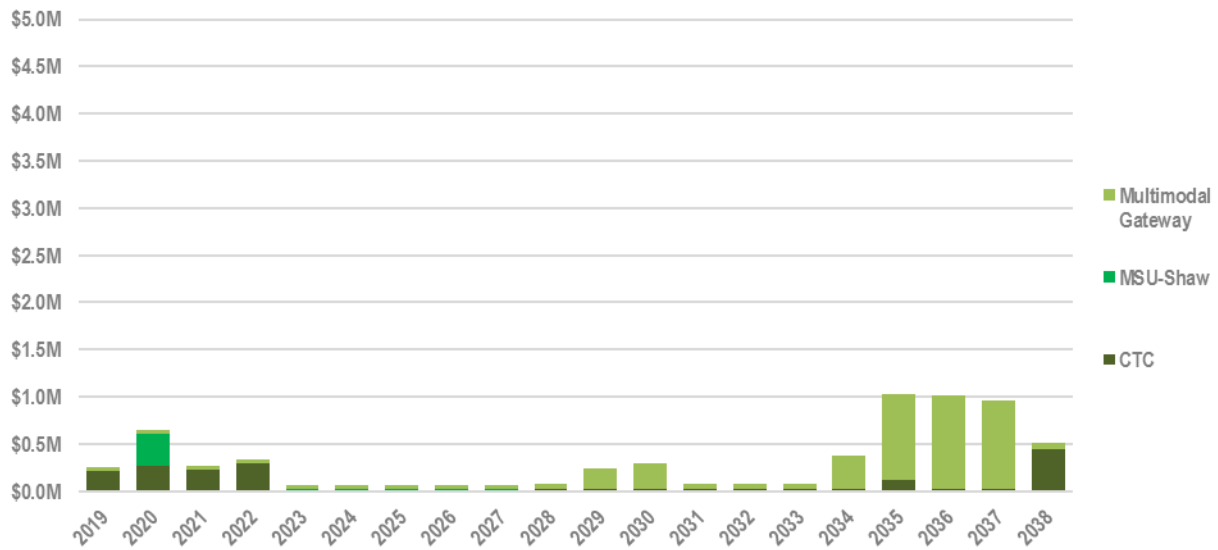


Figure 5-10 shows the projected station investments by location for CATA's three passenger stations. Overall, the three stations will require a total of \$4.2M in 2018 dollars (\$6.6M YOE) over the 20-year period, averaging about \$0.3M per year. It is worth noting that major costs for the Multimodal Gateway have been annualized over the entire asset lifecycle. Additionally, the MSU-Shaw parking ramp will require an investment in 2020 for the concrete pavement.

<sup>8</sup> YOE dollars at a 3% inflation rate

**Figure 5-10 20-Year Projected Station Investments by Location (2019-2038)**



Of the three stations, the only sub-components rated below 3.0 on the TERM scale were located at the CTC. Table 5-5 shows the two projects that are critical and require immediate investment.

**Table 5-5 Station Projects with a TERM Rating Below 3.0 (2019-2022)**

Description	Sub Component	ULB	Year Built	Total Costs (\$000s YOY)				
				2019	2020	2021	2022	Total
CTC Roof - Membrane	Buildings	20	1998	-	161	-	-	161
CTC Site	Buildings	20	1998	202	-	-	-	202
<b>Total</b>				<b>202</b>	<b>161</b>	<b>-</b>	<b>-</b>	<b>362</b>

# 6 IMPLEMENTATION STRATEGY

This section describes CATA's strategy for implementing the TAM Plan and achieving its TAM and SGR policy. It outlines the various roles and responsibilities, key changes in assets, and required resource needs.

## 6.1 ACCOUNTABILITY: ROLES AND RESPONSIBILITIES

In accordance with 49 CFR 625.25, responsibility for ensuring that a TAM Plan is developed and carried out rests with the Accountable Executive, the Chief Executive Officer (CEO). The Accountable Executive is also responsible to implementing the TAM and SGR.

The CEO delegated responsibility for overseeing the implementation, evaluation, and update of this TAM Plan to the System Planner. The System Planner also serves as the Chair of the Asset Management Team, which is made up of other managers with direct or supporting responsibilities in asset management. The role of the Chair is critical to the success of the program as this person serves as a liaison between departments and external stakeholders.

The Asset Management Team consists of the following:

- Chief Executive Officer (Accountable Executive)
- System Planner (Asset Management Team Chair)
- Deputy Chief Executive Officer
- Senior Analyst
- Director of Finance
- Grants Administrator
- Facilities Manager
- Director of Maintenance
- Director of Operations
- Director of IT Services

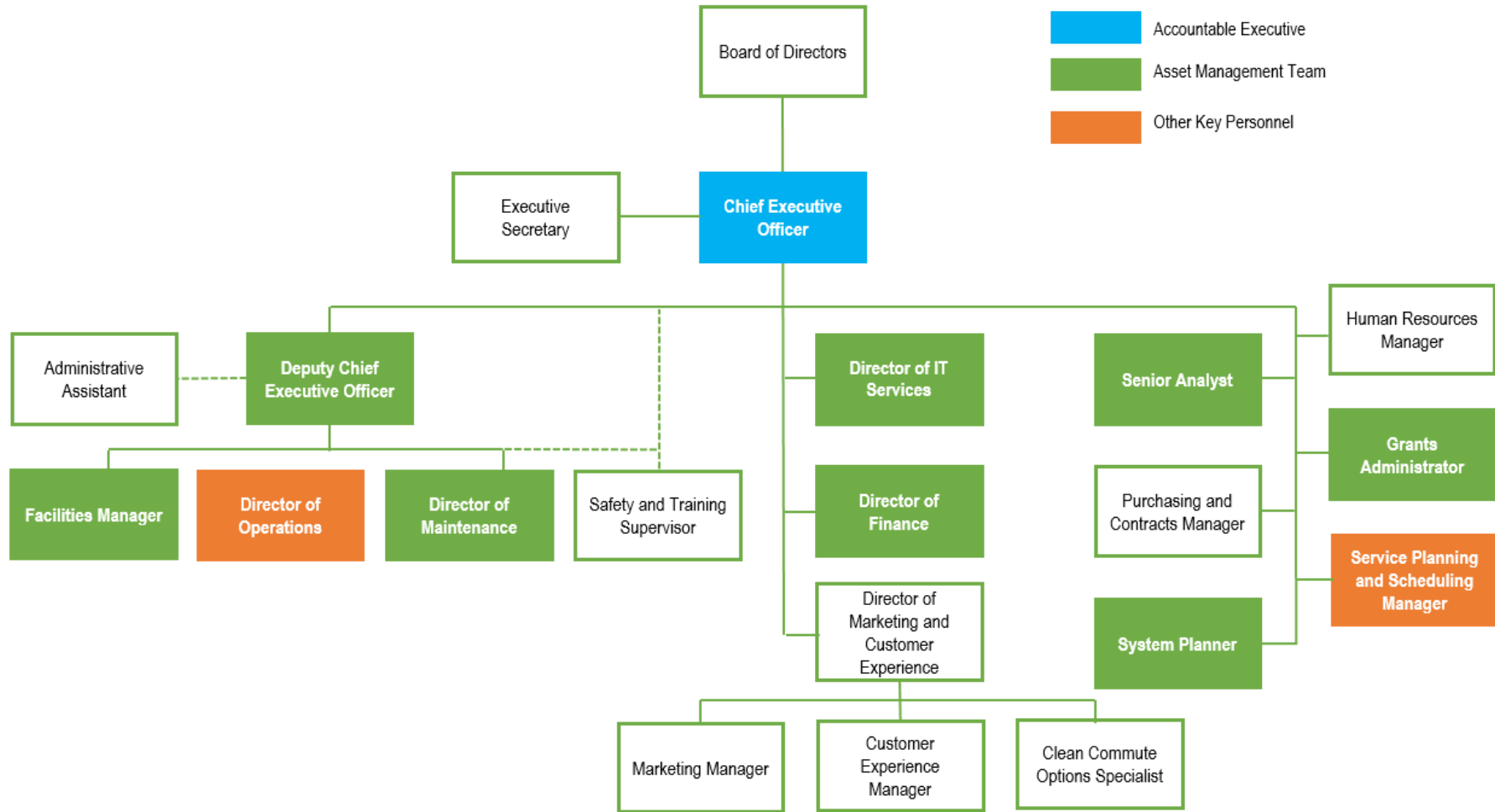
The agency-wide management team also interfaces with the Asset Management Team as it sets organizational policies and goals based on information provided by the Asset Management Team members. The group is responsible for conducting the trade-off analyses for their individual assets and presenting the results to the organizational management team.

Finally, there are external asset management advisors who may influence the recommendations provided by the Asset Management Team. These could be outside stakeholders, maintenance and operations personnel, or others with an interest in one or more agency assets.

Over time, the role and composition of the Asset Management Team will change as the program evolves. Initially, the team will be focused on strategy development and implementation. The second stage is generally plan development and implementation (data collection, level of service review, and plan development). The last stage is operation and ongoing plan review. At this last stage, the team evaluates and monitors outputs.

Figure 6-1 shows CATA's organizational chart highlighting the Accountable Executive and the Asset Management Team. Table 6-1 outlines the roles and responsibilities associated with each Asset Management Team member.

Figure 6-1 CATA Organizational Chart with Asset Management Team Indicated



**Table 6-1 Asset Management Team Roles and Responsibilities**

Role	Responsibility
Chief Executive Officer (Accountable Executive)	<ul style="list-style-type: none"> <li>Approves the TAM Plan and performance targets</li> <li>Determines the agency's TAM and SGR policy</li> </ul>
Deputy Chief Executive Officer	<ul style="list-style-type: none"> <li>Supports the development of TAM Plan and performance targets</li> <li>Supports the development of the TAM and SGR policy</li> <li>Supports the development of the prioritized project list</li> </ul>
System Planner (Asset Management Team Chair)	<ul style="list-style-type: none"> <li>Serves as a liaison between departments and outside stakeholders</li> <li>Coordinates the TAM Plan development and develops an overall corporate TAM strategy</li> <li>Prioritizes asset replacements and key activities with input from maintenance, facilities, and finance</li> <li>Leads the identification of resources to support asset management implementation</li> <li>Leads the development of the asset management implementation strategy</li> <li>Carries out evaluation of the plan to determine success of asset management system</li> </ul>
Director of Finance and Grants Administrator	<ul style="list-style-type: none"> <li>Ensures that finance inventory is aligned with TAM inventory</li> <li>Provides input for the development of the prioritized list of projects</li> </ul>
Facilities Manager	<ul style="list-style-type: none"> <li>Updates facility inventory and ensures alignment with finance inventory</li> <li>Performs facility condition assessments</li> <li>Conducts key annual activities related to facility assets</li> <li>Develops facility project list to ensure SGR</li> </ul>
Director of Maintenance	<ul style="list-style-type: none"> <li>Maintains vehicle asset inventory</li> <li>Performs condition assessments</li> <li>Conducts key annual activities related to vehicle assets</li> <li>Provides input for the development of the prioritized vehicle project list</li> </ul>
Director of IT	<ul style="list-style-type: none"> <li>Supports maintenance, facilities, and finance by ensuring alignment and interoperability of inventories</li> </ul>

## 6.2 KEY CHANGES IN ASSETS

In the period from March 2019 to October 2022, CATA plans to implement the following major capital projects:

- Purchase of Electric Buses:** Pursue plans to acquire two electric buses to expand the existing fleet. Vehicles projected to arrive between 2021 and 2022
- Replacement of Hybrid Fleet:** Starting in 2019, CATA plans to begin replacing its existing hybrid 40ft and articulated buses with diesel buses.
- Replacement of Trolleys:** In 2020, CATA plans to replace its two trolleybuses with vehicles similar to heavy-duty vans.

With a less definite schedule, CATA is also contemplating increased coordination with neighboring transit systems. Specifically, substantial economies and effectiveness may be achieved through collaboration in using transit assets and technology. Changes in the use of critical CATA assets or providing additional assets for joint use may make material changes in the asset inventory and plan.

## 6.3 ASSET INFORMATION STRATEGY

### 6.3.1 Existing Conditions

CATA currently has various information systems in place for asset management and is planning for upgrades and new system improvements in the future. The existing asset information systems are described below.

- **Microsoft Dynamics SL:** This is an enterprise resource planning (ERP) tool used for project and financial management. CATA uses this system to manage purchases and requisitions. The agency is exploring alternatives for replacement within the coming year.
- **Trapeze EAM:** This is an EAM system used by CATA for fleet management. Purchased in 2010, the agency has mainly used this system for work order management.
- **Microsoft Excel:** This is spreadsheet software used for data analysis and data visualization. CATA previously used Asset Works for facility management, but currently uses Excel as the main tool for managing facility assets and programming facility projects.

CATA has identified several asset management system improvements. Many of the improvements do not involve purchasing new systems but rather, enhancing the capabilities of existing systems.

### 6.3.2 Asset Management System Improvements

The asset management system improvements described in this section mostly lean toward fleet management, however, other assets are discussed. The fleet management improvements involve managing the fleet inventory, condition, mileage, ULB, and remaining useful life data. As stated previously, CATA uses Trapeze EAM for fleet management. This system is used by about 100 other transit agencies comparable to CATA (i.e., bus-only systems). A few other multimodal systems also use EAM.

The asset management system improvements are described below:

- **SGR Module in EAM:** The State of Good Repair planning module is a new module in the Trapeze EAM that provides high-level solutions for managing transit assets. Although this system has many of the functionalities described in subsequent paragraphs, its full functionality better serves larger multimodal agencies with dedicated asset managers. This solution may not be optimal for a bus-only agency such as CATA.
- **Re-Training and Optimization:** CATA can engage the professional services of Trapeze to re-train staff on the functions and capabilities of its EAM due to turnover at the agency. Generally, many EAM system functions are turned off by default and require a user to activate them based on their needs. A re-training session will provide CATA with better knowledge about their existing system and how all the EAM capabilities can be used to enhance their asset management system. For example, queries for NTD reports and basic exports for TERM Lite (the decision support tool used in this TAM Plan).

Training and optimization sessions are also an opportunity for Trapeze to understand CATA's information needs and build-in any management reports, based on their existing system. The optimization sessions focus on optimizing existing EAM capabilities without necessarily upgrading licenses. The sessions typically *map out the workflow* and understand how different staff uses the system. The existing EAM license at CATA *supports different user groups*, e.g., grants, maintenance, etc. The workflow mapping session therefore provides guidance for adjusting the system and providing the appropriate training.

Such a training session has not been hosted since the EAM was purchased in 2010. Trapeze provides such re-retraining services to clients across the country to agencies to optimize their existing EAM capabilities.

- **EAM System Updates:** Trapeze can also review the existing system to ensure that the agency has all the current updates available for CATA's existing module. For example, EAM has the capability of providing exports into TERM Lite for analyses, which CATA could use for future investment prioritization. CATA's existing license comes with annual maintenance that provides unlimited access to customer service. This customer service team is also in charge of performing free system updates annually.

- **Integration of Fleet Planning:** Trapeze has two options for fleet planning in EAM. The first option is called the state of good repair (SGR) module and is a new module for EAM. This version includes supports TAM efforts by having capabilities to generate asset condition scores and user-defined priorities. These priorities, in addition to condition, are used as indicators for asset replacement. The SOGR module also has a capital planning capability. Candidate projects can be prioritized and voted on based on a particular capital budget.  
  
The second option is the EAM system's traditional fleet replacement module, present in CATA's existing system and license. The asset replacement analysis focuses on a particular model of vehicles and ranks them by age and mileage, from highest to lowest. The output is a list of assets ordered by replacement priority. This module does not project replacement over multiple life cycles.
- **Automatic Vehicle Mileage and Service Data Collection:** CATA currently uses a manual system to collect and record data on vehicle mileage, fuel, and other fluids. To achieve automatic data collections, CATA can purchase such a tool from a number of different vendors. Trapeze also has an off-the shelf fuel system that could serve the purpose. However, Trapeze is capable of building an interface in CATA's EAM to import mileage and other data if an alternative solution that does not have a native EAM interface is selected.
- **Bus Parking Mapping:** CATA currently uses a manual system to map out bus locations in the garage. Automating the processes of vehicle assignments and vehicle location, can save time and ensure shifts are started on time. Trapeze has two potential options for bus mapping. The first is the Yard Walker part of the OPS tool that uses a tablet to collect data on vehicle locations. The second option is an RFID-based tool. The RFID-tool requires more implementation effort as it comes as a whole other enterprise tool.
- **Facility Management:** The Trapeze EAM has a facility management capability present in CATA's existing system, although a license may be required. The benefit to this approach is having all vehicle and facility assets in one system to aid planning and investment decisions. An EAM solution also supports tracking work performed on facilities in detail. This is beneficial for both an audit purposes and day-to-day facility management purposes. Managing facilities in spreadsheets creates a difficulty in mining data and tracking materials and labor. Once configured, the existing EAM can also produce custom reports. The system also includes a mobile piece (i.e., tablets) for facilities that could enhance tracking work performed.

# 7 LIST OF KEY ANNUAL ACTIVITIES

This section describes the key annual activities needed to implement the TAM Plan. The two groups of key activities are described below.

## 7.1 SCHEDULED AND PREVENTATIVE MAINTENANCE

Execute scheduled and preventative maintenance programs for all assets, including correcting defects identified during scheduled inspections and conducting necessary capital rehabilitation projects.

For vehicles:

- Conduct preventative maintenance for all directly operated and contracted vehicles
- Conduct mid-life rehabilitation investments for 40ft and articulated buses
- Replace vehicles that have reached the end of their Useful Life Benchmark

For stations and facilities:

- Conduct scheduled and preventative maintenance for all facility and station subcomponents
- Provide annual capital investments required to spread asset replacement cost over its entire lifecycle
- Undertake rehabilitation projects required for assets and subcomponents to meet their Useful Life Benchmark
- Undertake capital renewal projects to replace assets at the end of their Useful Life Benchmark

## 7.2 TAM PLAN ACTIVITIES

Every year, CATA will:

- Update the respective asset inventories in the asset management system
- Maintain ongoing condition assessment information
- Update costs associated with operation and maintenance of assets from the previous years' expenses
- Evaluate priorities among investment needs
- Conduct annual budgeting and updating of the Capital Improvement Plan
- Establish and report annual SGR targets to NTD
- Evaluate TAM Plan progress
- Evaluate the TAM Plan to identify necessary changes for the next formal update

Every four years, CATA will update the TAM Plan.

# 8 IDENTIFICATION OF RESOURCES

## 8.1 HUMAN RESOURCE NEEDS

Asset management initiatives are interdepartmental initiatives and therefore require commitment and effort from management and staff throughout the organization. Implementation of this TAM Plan also requires a qualified workforce experienced in various functions related to asset management. CATA has identified an Asset Management Team, listed in **Section 6: Implementation Strategy**, which consists of senior managers who oversee key asset management functions such as fleet maintenance, facility maintenance, finance, planning and IT. The Asset Management Team members lead the middle management and frontline employees who carry out the day-to-day asset management activities.

Although CATA has a qualified and experienced workforce, staff training is an ongoing commitment in workforce development and asset management. Part of CATA's mission is to meet mobility needs through innovative solutions, of which technology plays an important role. In line with this, CATA constantly seeks opportunities to adopt technologies, which improve service quality, operating efficiency and effectiveness, and aid the sustainable progress of the agency.

**Section 6.1** identifies the members of the Asset Management Team and their associated roles and responsibilities. To ensure the success of the TAM Plan implementation as CATA's asset management system evolves, it is necessary to meet the following needs within the Asset Management Team:

- **EAM System Maintenance:** Although the various asset managers are responsible for keeping their asset inventories up-to-date, the Chair, or another designated member of the Asset Management Team must be trained on using the agency's EAM system to maintain the asset inventories. This individual must keep track of active, inactive, contingency, and disposed vehicles. The Individual must also ensure consistency between the finance, maintenance and facility inventories.
- **Analytical Capability:** There is a need for the analytical capability to assess maintenance costs in attempts to minimize life-cycle costs. Reviewing operating and maintenance costs, as well as any capital costs invested, provides the information necessary for making better informed decisions about the total lifecycle costs
- **Capital Programming and Maintenance Planning Integration:** The issue of separated capital programming and maintenance planning is caused by having separate sources of funding for the two programs and has been reinforced by the separate inventories. The Asset Management Team can serve as an intermediary group for finding the requisite skills and resources for addressing this issue. For example, the facilities capital program can be better integrated with its maintenance program to support proper lifecycle planning.

## 8.2 FINANCIAL RESOURCE NEEDS

CATA receives most of its capital funding from federal formula grants. Table 8-1 shows CATA's historical capital spending on rehabilitation, reconstruction and replacement for existing service as reported to the National Transit Database (NTD). At an annual average of about \$5.4M, the summary shows a gradual increase to a peak in 2012 and a sharp decline in such investments afterwards.

**Table 8-1 Historical Spending on Rehabilitation, Reconstruction and Replacement for Existing Service (2006-2016)<sup>9</sup>**

Year	Total
2006	\$6,574,054
2007	\$7,009,636
2008	\$2,040,234
2009	-
2010	\$10,115,684
2011	\$8,789,943
2012	\$12,060,883
2013	\$1,245,816
2014	\$1,903,890
2015	\$1,165,062
2016	\$3,155,120
<b>Average</b>	<b>\$5,406,032</b>

Table 8-2 also shows a summary of the funding requests for vehicle replacements only for FY19 to FY23. On average, about \$7.0M of the total funding request amount is budgeted for vehicle replacements annually. Over the five-year period, a total of \$35.2M in funding requests has been budgeted for vehicle replacements.

**Table 8-2 Planned/Budgeted Vehicle Funding Requests FY19 to FY23**

Year	5307	5339	CMAQ	5310	Total
<b>2019</b>	\$ 5,211,518	\$ 1,097,301	\$ 439,898	\$ 187,686	\$ 6,936,403
<b>2020</b>	\$ 5,503,383	\$ 1,139,959	\$ -	\$ 193,317	\$ 6,836,659
<b>2021</b>	\$ 5,549,946	\$ 1,174,159	\$ -	\$ 199,116	\$ 6,923,221
<b>2022</b>	\$ 5,713,444	\$ 1,209,383	\$ -	\$ 205,090	\$ 7,127,917
<b>2023</b>	\$ 5,881,847	\$ 1,245,665	\$ -	\$ 211,242	\$ 7,338,754
<b>Average</b>	<b>\$ 5,572,028</b>	<b>\$ 1,173,293</b>	<b>\$ 87,980</b>	<b>\$ 199,290</b>	<b>\$ 7,032,591</b>

Although, the budgeted annual vehicle funding requests are much lower than the projects identified in **Section 5.5**, CATA will still be able to fund those asset replacements and rehabilitations due to the low historical spending as shown in Table 8-1. CATA will be able to use the balance of unspent funds on the TAM Plan SGR projects.

For facilities and stations, CATA will need to identify and secure additional funding to meet its SGR needs. The total cost of the SGR projects listed exceeds the historical funding amounts. CATA will likely pursue grant funding to meet the funding shortfall.

<sup>9</sup> NTD Form F20 – Rehabilitation/Reconstruction/Replacement/Improvement for Existing Service

## 9 EVALUATION PLAN

This section describes how CATA will monitor, evaluate and update the TAM Plan and related business practices.

### 9.1 TAM PLAN MONITORING AND EVALUATION

The annual TAM Plan evaluation process includes two components: (1) performance target setting and reporting, as required by the TAM Rule, and (2) evaluating progress of planned asset management activities.

#### 9.1.1 Performance Target Setting and Reporting

The annual evaluation process will include setting targets with the approval of the Accountable Executive for each asset class in the CATA NTD inventory of assets, using the following FTA-required performance measures:

- Percent of assets past their ULB (rolling stock and non-revenue vehicles)
- Percent of facilities below a rating of 3.0 on the TERM facility condition rating scale

The process will also include an annual narrative report to the National Transit Database that provides a description of any change in the condition of the CATA transit system from the previous year. The annual report will also describe progress made during the year to meet the performance targets set in the previous year (49 CFR 525.55(a)(2)).

#### 9.1.2 Progress of Planned Asset Management Activities

CATA will monitor and evaluate the completion or progress of the following planned asset management activities:

- Short-Term
  - Monitor and evaluate the completion of scheduled preventative maintenance
  - Monitor and evaluate linkage to performance
- Long-Term
  - Monitor and evaluate progress on major capital renewal and expansion projects identified in this document
  - Monitor and evaluate progress on on-site condition assessments
  - Monitor and evaluate progress on the implementation of the asset information strategy (i.e., asset management system improvements)
- Periodic
  - Monitor and evaluate asset management performance
  - Monitor and evaluate internal and external changes which affect CATA's asset management activities including changes in the Asset Management Team, organizational structure, staffing, accountability, and the decision-making process

### 9.2 TAM PLAN UPDATE

The TAM Rule, 49 CFR 625.29 provides specifications on the TAM Plan horizon period, amendments and updates. According to the Rule, the horizon period for the TAM Plan should be no shorter than four years and an update performed at least once every four years. Additionally, the TAM Plan must be updated when any significant changes occur. In accordance to the Rule, CATA will update the TAM Plan every four years.

## 9.2.1 Alignment of TAM and SGR Policy with Agency-Wide Strategic Plan

The CATA TAM Plan will be updated with any significant changes if those changes occur before an update is due. This includes alignment with changes made in any key agency-wide policies. This will ensure that the TAM and SGR policy remains consistent with CATA's overall vision, mission, and strategic goals.

## 9.2.2 Updates on Implementation Strategy

In subsequent updates to the TAM Plan, CATA will identify changes in the asset management implementation strategy and update the plan accordingly. CATA will examine the organizational structure of the Asset Management Team and make updates as necessary. The asset information strategy will also be updated to reflect the latest technological improvements and needs related to asset management.

CATA will identify and document any anticipated challenges in implementing the update TAM Plan as well as the mitigation strategies to be adopted.

# APPENDIX A. ASSET INVENTORY

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator	
1	MB	CATA Admin - Electrical	Facilities	Buildings	Building Components	Electrical	1	LS	2007	2018	0.35	575,397.68	4	50										CATA	
2	MB	CATA Admin - Electrical - Exterior Lighting	Facilities	Buildings	Building Components	Electrical	1	LS	2007	2018	0.35	74,250.00	3	20											CATA
3	MB	CATA Admin - Electrical - Interior Lighting	Facilities	Buildings	Building Components	Electrical	1	LS	2007	2018	0.35	291,992.85	3	15											CATA
4	MB	CATA Maint - Electrical - Exterior Lighting	Facilities	Buildings	Building Components	Electrical	1	LS	2015	2018	0.35	33,750.00	3	20											CATA
5	MB	CATA Maint - Electrical - Interior Lighting	Facilities	Buildings	Building Components	Electrical	1	LS	1998	2018	0.35	100,406.25	3	15											CATA
6	MB	CATA Maint - Electrical- Maint. N	Facilities	Buildings	Building Components	Electrical	1	LS	2004	2018	0.35	168,318.00	4	50											CATA
7	MB	CATA Maint - Electrical- SA Maint. N	Facilities	Buildings	Building Components	Electrical	1	LS	2011	2018	0.35	444,582.00	4	50											CATA
8	MB	CATA Maint - Electrical- SA Maint. Shop	Facilities	Buildings	Building Components	Electrical	1	LS	1978	2018	0.35	551,367.00	4	50											CATA
9	MB	CATA Admin - Fire Protection	Facilities	Buildings	Building Components	Fire Alarm	1	LS	2007	2018	0.35	171,760.50	4	15											CATA
10	MB	CATA Maint - Fire Protection	Facilities	Buildings	Building Components	Fire Alarm	1	LS	2004	2018	0.35	494,125.38	3	15											CATA
11	MB	CATA Admin - Plumbing - First Floor	Facilities	Buildings	Building Components	Plumbing	1	LS	1978	2018	0.35	89,268.48	4	40											CATA
12	MB	CATA Admin - Plumbing - Fixtures - Second Floor	Facilities	Buildings	Building Components	Plumbing	1	LS	2007	2018	0.35	23,422.50	4	15											CATA
13	MB	CATA Admin - Plumbing - Fixtures -First Floor	Facilities	Buildings	Building Components	Plumbing	1	LS	1978	2018	0.35	66,487.50	4	15											CATA
14	MB	CATA Admin - Plumbing - Second Floor	Facilities	Buildings	Building Components	Plumbing	1	LS	2007	2018	0.35	15,717.24	4	40											CATA
15	MB	CATA Maint - Plumbing - Fixtures	Facilities	Buildings	Building Components	Plumbing	1	LS	2004	2018	0.35	28,147.50	3	15											CATA
16	MB	CATA Maint - Plumbing - Maint N	Facilities	Buildings	Building Components	Plumbing	1	LS	2004	2018	0.35	233,405.55	4	40											CATA
17	MB	CATA Maint - Plumbing - Maint Shop	Facilities	Buildings	Building Components	Plumbing	1	LS	1978	2018	0.35	11,486.81	3	40											CATA
18	MB	CATA Maint - Plumbing - SA Middle	Facilities	Buildings	Building Components	Plumbing	1	LS	1978	2018	0.35	249,237.00	3	40											CATA
19	MB	CATA Maint - Plumbing - SA N	Facilities	Buildings	Building Components	Plumbing	1	LS	2011	2018	0.35	166,718.25	4	40											CATA
20	MB	CATA Maint - Plumbing - SA S	Facilities	Buildings	Building Components	Plumbing	1	LS	2011	2018	0.35	120,799.35	4	40											CATA
21	MB	CATA Admin - HVAC	Facilities	Buildings	Building Components	HVAC	1	LS	2007	2018	0.35	721,394.10	4	12											CATA
22	MB	CATA Maint - HVAC - SA Middle	Facilities	Buildings	Building Components	HVAC	1	LS	2011	2018	0.35	1,038,487.50	3	12											CATA
23	MB	CATA Maint - HVAC - SA N	Facilities	Buildings	Building Components	HVAC	1	LS	2011	2018	0.35	389,009.25	3	12											CATA
24	MB	CATA Maint - HVAC - SA S	Facilities	Buildings	Building Components	HVAC	1	LS	2011	2018	0.35	155,313.45	3	12											CATA
25	MB	CATA Admin - Building Boiler - First Floor	Facilities	Buildings	Building Components	Boiler	1	LS	2011	2018	0.35	39,622.50	4	12											CATA
26	MB	CATA Admin - Building Boiler - Second Floor	Facilities	Buildings	Building Components	Boiler	1	LS	2007	2018	0.35	21,768.75	3	12											CATA
27	MB	CATA Admin - Roof - Membrane-First Floor	Facilities	Buildings	Building Components	Roof	15744	SF	2012	2018	0.35	382,579.20	4	20											CATA
28	MB	CATA Admin - Roof - Membrane-Second Floor	Facilities	Buildings	Building Components	Roof	9702	SF	2006	2018	0.35	248,856.30	4	20											CATA
29	MB	CATA Maint - Roof - Membrane - Maint. Shop N	Facilities	Buildings	Building Components	Roof	15585	SF	2004	2018	0.35	378,715.50	3	15											CATA
30	MB	CATA Maint - Roof Membrane - Maint. Shop	Facilities	Buildings	Building Components	Roof	34035	SF	2016	2018	0.35	827,050.50	4	20											CATA
31	MB	CATA Maint - Roof Membrane - Stg. Area Middle	Facilities	Buildings	Building Components	Roof	61540	SF	2001	2018	0.35	1,495,422.00	2	15											CATA
32	MB	CATA Maint - Roof Membrane - Stg. Area N	Facilities	Buildings	Building Components	Roof	41165	SF	2011	2018	0.35	1,000,309.50	4	20											CATA
33	MB	CATA Maint - Roof Membrane - Stg. Area S	Facilities	Buildings	Building Components	Roof	25566	SF	2011	2018	0.35	621,253.80	4	15											CATA
34	MB	CATA Maint - Roof Membrane - Stg. Area SE	Facilities	Buildings	Building Components	Roof	2450	SF	2012	2018	0.35	59,535.00	4	15											CATA
35	MB	CATA Admin - Shell- First Floor	Facilities	Buildings	Building Components	Exterior	15744	SF	1978	2018	0.35	1,254,009.60	4	50											CATA
36	MB	CATA Admin - Shell- Second Floor	Facilities	Buildings	Building Components	Exterior	9702	SF	2007	2018	0.35	484,664.67	4	50											CATA
37	MB	CATA Maint - Overhead Doors	Facilities	Buildings	Building Components	Exterior	10	Each	2004	2018	0.35	134,244.00	4	15											CATA
38	MB	CATA Maint - Overhead Doors	Facilities	Buildings	Building Components	Exterior	11	Each	2011	2018	0.35	208,494.00	4	15											CATA
39	MB	CATA Maint - Shell - Maint Shop	Facilities	Buildings	Building Components	Exterior	34035	SF	1978	2018	0.35	2,435,204.25	4	50											CATA
40	MB	CATA Maint - Shell - Maint Shop N	Facilities	Buildings	Building Components	Exterior	16194	SF	2004	2018	0.35	721,442.70	4	50											CATA
41	MB	CATA Maint - Shell - SA	Facilities	Buildings	Building Components	Exterior	35752	SF	2011	2018	0.35	1,496,221.20	4	50											CATA
42	MB	CATA Admin - Site	Facilities	Buildings	Building Components	Access and Parking	25446	SF	2007	2018	0.35	446,577.30	2	20											CATA
43	MB	CATA Maint - Site - Asphalt	Facilities	Buildings	Building Components	Access and Parking	121749	SF	2011	2018	0.35	1,479,250.35	3	20											CATA
44	MB	CATA Maint - Site-Concrete	Facilities	Buildings	Building Components	Access and Parking	50815	SF	1978	2018	0.35	686,002.50	2	20											CATA
45	MB	CATA Admin - Conveyance	Facilities	Buildings	Building Components	Elevators and Conveying Systems	1	Each	2007	2018	0.35	87,750.00	4	25											CATA

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator	
46	MB	CATA Maint - Building Generators-1	Facilities	Buildings	Building Components	Generators	1	Each	2006	2018	0.35	368,145.00	3	15										CATA	
47	MB	CATA Maint - Building Generators-2	Facilities	Buildings	Building Components	Generators	1	Each	2013	2018	0.35	123,255.00	4	15											CATA
48	MB	CATA Admin - Interiors	Facilities	Buildings	Building Components	Interior	25446	SF	2007	2018	0.35	480,929.40	4	20											CATA
49	MB	CATA Maint - Interiors	Facilities	Buildings	Building Components	Interior	130721	SF	2011	2018	0.35	2,470,626.90	3	20											CATA
50	MB	CATA Admin - Substructure	Facilities	Buildings	Building Components	Other	25446	SF	1978	2018	0.35	549,633.60	4	50											CATA
51	MB	CATA Maint - Substructure - Maint Shop	Facilities	Buildings	Building Components	Other	34035	SF	1978	2018	0.35	735,156.00	3	50											CATA
52	MB	CATA Maint - Substructure - Maint Shop N	Facilities	Buildings	Building Components	Other	15585	SF	2004	2018	0.35	336,636.00	3	50											CATA
53	MB	CATA Maint - Substructure - SA Middle	Facilities	Buildings	Building Components	Other	61540	SF	1978	2018	0.35	1,329,264.00	3	50											CATA
54	MB	CATA Maint - Substructure - SA N	Facilities	Buildings	Building Components	Other	41165	SF	2011	2018	0.35	889,164.00	3	50											CATA
55	MB	CATA Maint - Substructure - SA S	Facilities	Buildings	Building Components	Other	25566	SF	2011	2018	0.35	552,225.60	3	50											CATA
56	MB	CATA Maint - Wireless Portable Fareboxes	Facilities	Equipment	Maintenance	Misc Equip	10	Each	2007	2018	0.35	67,567.50	4	12											CATA
57	MB	CATA Maint - Bulk Fluid Tanks	Facilities	Equipment	Maintenance	Bus	1	Each	2007	2018	0.35	202,500.00	3	25											CATA
58	MB	CATA Maint - Central Vacuum	Facilities	Equipment	Maintenance	Bus	1	Each	2002	2018	0.35	101,250.00	3	15											CATA
59	MB	CATA Maint - Dies/DEF Refilling Station	Facilities	Equipment	Maintenance	Bus	1	Each	2002	2018	0.35	70,200.00	3	12											CATA
60	MB	CATA Maint - Fall Protection	Facilities	Equipment	Maintenance	Bus	1	Each	2013	2018	0.35	27,000.00	4	20											CATA
61	MB	CATA Maint - Fluid Management System	Facilities	Equipment	Maintenance	Bus	1	Each	2004	2018	0.35	47,250.00	3	12											CATA
62	MB	CATA Maint - Gasoline Refilling Station Tank & Pump	Facilities	Equipment	Maintenance	Bus	1	Each	2002	2018	0.35	139,455.00	3	12											CATA
63	MB	CATA Maint - Stanley Stack	Facilities	Equipment	Maintenance	Bus	1	Each	2004	2018	0.35	32,400.00	4	20											CATA
64	MB	CATA Maint - Stanley Stack	Facilities	Equipment	Maintenance	Bus	1	Each	2000	2018	0.35	27,000.00	4	20											CATA
65	MB	CATA Maint - Bus Washer	Facilities	Equipment	Maintenance	Bus Washer	2	Each	2003	2018	0.35	1,620,000.00	3	12											CATA
66	MB	CATA Maint - Mohawk 16,000 lbs Above Ground	Facilities	Equipment	Maintenance	Lifts - Fixed	1	Each	2014	2018	0.35	16,200.00	4	15											CATA
67	MB	CATA Maint - Brake Lathe	Facilities	Equipment	Maintenance	Brake Lathe	2	Each	2003	2008	0.35	226,969.67	3	15											CATA
68	MB	CATA Maint - Brake Lathe	Facilities	Equipment	Maintenance	Brake Lathe	2	Each	2008	2018	0.35	27,000.00	3	15											CATA
69	MB	CATA Maint - Articulated Lifts - Fixed: In Floor	Facilities	Equipment	Maintenance	Lifts - Fixed: In Floor	2	Each	2004	2018	0.35	580,500.00	3	12											CATA
70	MB	CATA Maint - Lifts - Fixed: In Floor	Facilities	Equipment	Maintenance	Lifts - Fixed: In Floor	7	Each	2013	2018	0.35	1,512,000.00	3	12											CATA
71	MB	CATA Maint - Lifts - Fixed: Parallelogram	Facilities	Equipment	Maintenance	Lifts - Fixed: Parallelogram	1	Each	2002	2018	0.35	205,200.00	3	20											CATA
72	MB	CATA Maint - Air Compressor	Facilities	Equipment	Maintenance	Air Compressor	1	Each	1987	2018	0.35	30,375.00	3	20											CATA
73	MB	CATA Maint - Air Compressor	Facilities	Equipment	Maintenance	Air Compressor	1	Each	1996	2018	0.35	30,375.00	3	20											CATA
74	MB	CATA Maint - Lifts - Mobile - Wired	Facilities	Equipment	Maintenance	Hoist	1	Each	2004	2018	0.35	148,500.00	2	12											CATA
75	MB	CATA Maint - Lifts - Mobile - Wireless	Facilities	Equipment	Maintenance	Hoist	1	Each	2015	2018	0.35	148,500.00	4	12											CATA
76	MB	CATA Maint - Propane Refueling Station	Facilities	Equipment	Maintenance	Misc Equip	1	Each	2013	2018	0.35	236,250.00	4	12											CATA
77	MB	CTC Electrical - Exterior Lighting	Stations	Building	Building Components	Lighting	1	Each	2015	2018	0.35	56,133.00	4	20											CATA
78	MB	CTC Electrical - Interior Lighting	Stations	Building	Building Components	Lighting	1	Each	1998	2018	0.35	185,982.74	4	50											CATA
79	MB	Multi. Modal Gateway - Exterior Lighting	Stations	Building	Building Components	Lighting	1	Each	2015	2018	0.35	57,753.00	4	20											CATA
80	MB	Multi. Modal Gateway Lighting	Stations	Building	Building Components	Lighting	1	Each	2015	2018	0.35	84,223.13	4	15											CATA
81	MB	CTC Station Attendant Booth	Stations	Building	Building Components	Station Attendant Booth	1	Each	1998	2018	0.35	151,200.00	4	50											CATA
82	MB	CTC Interiors	Stations	Building	Building Components	Interior	14022	SF	1998	2018	0.35	265,015.80	3	20											CATA
83	MB	Multi. Modal Gateway Interiors	Stations	Building	Building Components	Interior	7130	SF	2015	2018	0.35	115,506.00	4	20											CATA
84	MB	CTC Electrical	Stations	Building	Building Components	Building Electrical	1	Each	1998	2018	0.35	208,226.70	4	50											CATA
85	MB	Multi. Modal. Gateway Electrical	Stations	Building	Building Components	Building Electrical	1	Each	2015	2018	0.35	173,259.00	4	50											CATA
86	MB	CTC Fire Protection	Stations	Building	Building Components	Fire Alarm	1	LS	1998	2018	0.35	85,183.65	4	15											CATA
87	MB	CTC Plumbing	Stations	Building	Building Components	Plumbing	14022	LS	1998	2018	0.35	#REF!	4	40											CATA
88	MB	CTC Plumbing - Fixtures	Stations	Building	Building Components	Plumbing	1	LS	1998	2018	0.35	59,602.50	4	15											CATA
89	MB	Multi. Modal Gateway Fire Protection	Stations	Building	Building Components	Fire Alarm	1	LS	2015	2018	0.35	40,908.38	4	15											CATA
90	MB	Multi. Modal Gateway Plumbing	Stations	Building	Building Components	Plumbing	1	LS	2015	2018	0.35	15,882.08	4	40											CATA

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
91	MB	Multi. Modal Gateway Plumbing - Fixtures	Stations	Building	Building Components	Plumbing	1	LS	2015	2018	0.35	27,877.50	4	15										CATA
92	MB	CTC HVAC	Stations	Building	Building Components	HVAC	1	LS	2006	2018	0.35	378,594.00	3	12										CATA
93	MB	Multi. Modal Gateway HVAC	Stations	Building	Building Components	HVAC	1	LS	2015	2018	0.35	120,318.75	4	12										CATA
94	MB	CTC Roof - Membrane	Stations	Building	Building Components	Roof	14022	SF	1998	2018	0.35	151,437.60	2	20										CATA
95	MB	CTC Roof - Metal	Stations	Building	Building Components	Roof	5000	SF	1998	2018	0.35	162,000.00	3	40										CATA
96	MB	Multi. Modal Roof	Stations	Building	Building Components	Roof	11487	SF	2015	2018	0.35	279,134.10	4	20										CATA
97	MB	CTC Shell	Stations	Building	Building Components	Exterior	14022	SF	1998	2018	0.35	1,003,274.10	4	50										CATA
98	MB	Multi. Modal Gateway Shell	Stations	Building	Building Components	Exterior	7130	SF	2015	2018	0.35	673,785.00	4	20										CATA
99	MB	CTC Site	Stations	Building	Building Components	Other	14022	SF	1998	2017	0.35	195,789.33	2	20										CATA
100	MB	CTC Substructure	Stations	Building	Building Components	Other	14022	SF	1998	2018	0.35	302,875.20	4	50										CATA
101	MB	MSU Interiors - Furniture	Stations	Building	Building Components	Other	84	LS	2000	2018	0.35	39,803.40	4	20										CATA
102	MB	MSU Site - Concrete pavement	Stations	Building	Building Components	Other	23164	Each	2000	2017	0.35	323,439.16	4	20										CATA
103	MB	Multi. Modal Gateway Substructure	Stations	Building	Building Components	Other	7130	Each	2015	2018	0.35	154,008.00	4	50										CATA
104	MB	Multi. Modal. Gateway Site - Asphalt	Stations	Access	Parking	Lot	77926	Each	2015	2017	0.35	979,273.37	4	20										CATA
105	MB	Multi. Modal. Gateway Site - Concrete	Stations	Access	Parking	Lot	25454	Each	2015	2017	0.35	355,414.46	4	20										CATA
106	MB	Multi. Modal Gateway Electronic Signage & Graphics	Stations	Signage & Graphics	Electronic	-	1	Each	2015	2018	0.35	54,000.00	4	20										CATA
2	SY	FORD TAURUS SE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2018	2018	11.5%	22,891.21	4		FORD TAURUS SE	2	Gasoline			Active	1FAHP2D86JG126825	660	106X804	CATA
229	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2009	2009	11%	105,645.75	7		CHA E450	229	Diesel Fuel	25	5	Active	1FD4E45P79DA14147	306,272	106X773	CATA
261	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2008	2008	11%	107,423.90	7		CHA E450	261	Diesel Fuel	25	15	Active	1FD4E45P18DA35436	129,957	012X281	CATA
263	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2008	2008	12%	108,969.26	7		CHA E450	263	Diesel Fuel	25	15	Active	1FD4E45P68DB59282	176,371	012X036	CATA
264	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2009	2009	12%	108,455.16	7		CHA E450	264	Diesel Fuel	25	5	Contingency	1FD4E4FP0ADA24215	225,971	066X869	CATA
265	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2009	2009	12%	110,145.69	7		CHA E450	265	Diesel Fuel	25	5	Active	1FD4E4FP1ADA24224	156,683	066X870	CATA
266	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	12%	105,349.94	7		CHA E450	266	Diesel Fuel	25	5	Active	1FD4E4FP3ADA41140	233,317	012X040	CATA
267	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	12%	105,349.94	7		CHA E450	267	Diesel Fuel	25	5	Active	1FD4E4FP5ADA41141	203,003	012X218	CATA
268	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	11%	107,950.95	7		CHA E450	268	Diesel Fuel	27	21	Active	1FD4E4FP6ADA41133	136,770	012X184	CATA
269	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	11%	106,984.41	7		CHA E450	269	Diesel Fuel	27	21	Active	1FD4E4FPXADA41765	141,842	012X041	CATA
270	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	11%	105,349.94	7		CHA E450	270	Diesel Fuel	25	5	Active	1FD4E4FP3ADA23172	247,591	012X185	CATA
271	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	11%	106,984.41	7		CHA E450	271	Diesel Fuel	27	21	Active	1FD4E4FP4ADA41762	149,518	012X181	CATA
272	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	11%	105,349.94	7		CHA E450	272	Diesel Fuel	25	5	Active	1FD4E4FP3ADA41137	243,426	012X182	CATA
273	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	273	Gasoline	25	5	Active	1FD4E4FS1CDA47106	265,054	012X289	CATA
274	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	274	Gasoline	25	5	Active	1FD4E4FS3CDA47107	245,393	012X166	CATA
275	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	275	Gasoline	25	5	Active	1FD4E4FS5CDA47108	244,693	012X164	CATA
276	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	276	Gasoline	25	5	Active	1FD4E4FS7CDA47465	204,839	012X051	CATA
277	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	277	Gasoline	25	5	Active	1FD4E4FS9CDA47466	250,991	012X050	CATA
279	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2012	2012	11%	97,275.58	7		CHA E450	279	Gasoline	25	5	Active	1FD4E4FS2CDA47468	226,866	012X053	CATA
280	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	11%	94,049.95	7		CHA E450	280	Gasoline	25	11	Active	1FD4E4FS1CDB33595	141,423	012X194	CATA
281	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	98,518.26	7		CHA E450	281	Gasoline	25	15	Active	1FD4E4FSXCDB33594	129,916	012X163	CATA
282	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	98,518.26	7		CHA E450	282	Gasoline	25	15	Active	1FD4E4FS8CDB33593	133,100	012X177	CATA
283	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	98,518.26	7		CHA E450	283	Gasoline	25	15	Active	1FD4E4FS6CDB33592	130,484	012X160	CATA
284	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	97,683.78	7		CHA E450	284	Gasoline	25	15	Active	1FD4E4FS4CDB33591	201,311	012X178	CATA
285	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	94,381.37	7		CHA E450	285	Gasoline	25	5	Active	1FD4E4FS2CDB33590	201,192	012X196	CATA
286	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	94,381.37	7		CHA E450	286	Gasoline	25	5	Active	1FD4E4FS6CDB33589	224,701	012X290	CATA
287	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	94,381.37	7		CHA E450	287	Gasoline	25	5	Active	1FD4E4FS5DDA20492	208,541	100X355	CATA
288	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	94,381.37	7		CHA E450	288	Gasoline	25	5	Active	1FD4E4FS7DDA20493	153,236	100X348	CATA

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
289	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	5%	98,349.00		7	CHA E450	289	Gasoline	25	15	Active	1FDFE4FS6DDA20498	141,080	100X362	CATA
290	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2014	2014	5%	95,087.77		7	CHA E450	290	Gasoline	25	19	Active	1FDFE4FS2EDB17229	123,327	012X064	CATA
291	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2014	2014	4%	90,024.90		7	CHA E450	291	Gasoline	25	19	Active	1FDFE4FS9EDB17230	113,528	106X691	CATA
293	DR	25FT CHAMP BUS	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2014	2014	4%	90,024.90		7	CHA E450	293	Gasoline	25	19	Active	1FDFE4FS2EDB17232	98,817	012X258	CATA
400	DR	27FT IC HYBRID	Vehicles	Revenue Vehicles	Bus	Bus (<30 ft) - Hybrid	1	Each	2010	2010	4%	229,209.47		10	IC IC	400	Hybrid Diesel	27	21	Active	4DRASAM3AH232421	68,478	066X867	CATA
401	DR	27FT IC HYBRID	Vehicles	Revenue Vehicles	Bus	Bus (<30 ft) - Hybrid	1	Each	2010	2010	4%	229,209.47		10	IC IC	401	Hybrid Diesel	27	21	Active	4DRASSAM8AH259372	81,187	066X868	CATA
512	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	512	Diesel Fuel	40	37	Active	5FYD2LL001U022177	671,311	012X083	CATA
515	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4.5%	483,134.00		12	NF D40LF	515	Diesel Fuel	40	37	Active	5FYD2LL001U022180	584,247	012X086	CATA
518	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	518	Diesel Fuel	40	37	Active	5FYD2LL061U022183	740,509	012X089	CATA
520	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	520	Diesel Fuel	40	37	Active	5FYD2LL0X1U022185	663,967	012X091	CATA
522	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	522	Diesel Fuel	40	37	Active	5FYD2LL031U022187	616,340	012X093	CATA
523	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	523	Diesel Fuel	40	37	Active	5FYD2LL051U022188	622,561	012X094	CATA
526	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	526	Diesel Fuel	40	37	Active	5FYD2LL051U022191	695,436	012X097	CATA
530	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	530	Diesel Fuel	40	37	Active	5FYD2LL021U022195	759,061	012X101	CATA
531	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	531	Diesel Fuel	40	37	Active	5FYD2LL041U022196	697,861	012X102	CATA
538	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	538	Diesel Fuel	40	37	Active	5FYD2LL081U022203	658,630	012X109	CATA
544	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	544	Diesel Fuel	40	37	Active	5FYD2LL091U022209	655,918	012X115	CATA
546	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	546	Diesel Fuel	40	37	Active	5FYD2LL071U022211	666,013	012X117	CATA
549	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	549	Diesel Fuel	40	37	Active	5FYD2LL021U022214	718,479	012X120	CATA
550	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	550	Diesel Fuel	40	37	Active	5FYD2LL041U022215	688,877	012X121	CATA
551	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	551	Diesel Fuel	40	37	Active	5FYD2LL061U022216	704,461	012X122	CATA
553	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	553	Diesel Fuel	40	37	Active	5FYD2LL0X1U022218	564,889	012X124	CATA
554	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2001	2018	4%	483,134.00		12	NF D40LF	554	Diesel Fuel	40	37	Active	5FYD2LL011U022219	643,213	012X125	CATA
559	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	559	Diesel Fuel	40	37	Active	5FYD2LN093U025031	598,039	012X129	CATA
561	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	561	Diesel Fuel	40	37	Active	5FYD2LN023U025033	579,736	012X131	CATA
562	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	562	Diesel Fuel	40	37	Active	5FYD2LN043U025034	562,104	012X132	CATA
563	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	563	Diesel Fuel	40	37	Active	5FYD2LN063U025035	609,303	012X133	CATA
564	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	564	Diesel Fuel	40	37	Active	5FYD2LN083U025036	524,978	012X134	CATA
565	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	565	Diesel Fuel	40	37	Active	5FYD2LN0X3U025037	594,256	012X135	CATA
566	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2003	2018	4%	483,134.00		12	NF D40LF	566	Diesel Fuel	40	37	Active	5FYD2LN013U025038	611,509	012X136	CATA
567	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	4%	483,134.00		12	NF D40LF	567	Diesel Fuel	40	37	Contingency	5FYD4FV065C028859	351,123	012X141	CATA
568	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	4%	483,134.00		12	NF D40LF	568	Diesel Fuel	40	37	Active	5FYD4FV025C028860	526,310	012X142	CATA
569	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	4%	483,134.00		12	NF D40LF	569	Diesel Fuel	40	37	Active	5FYD4FV045C028861	558,793	012X143	CATA
570	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	4%	483,134.00		12	NF D40LF	570	Diesel Fuel	40	37	Active	5FYD4FV065C028862	501,991	012X144	CATA
571	MB	40FT LF BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	4%	483,134.00		12	NF D40LF	571	Diesel Fuel	40	37	Active	5FYD4FV085C028863	494,849	012X145	CATA
572	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	829,226.89		12	NF DE40LFR	572	Hybrid Diesel	40	37	Active	5FYH5FV026C030169	451,355	012X149	CATA
573	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	829,226.89		12	NF DE40LFR	573	Hybrid Diesel	40	37	Active	5FYH5FV096C030170	471,481	012X150	CATA
574	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	829,226.89		12	NF DE40LFR	574	Hybrid Diesel	40	37	Active	5FYH5FV006C030171	422,743	012X151	CATA
575	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	849,357.52		12	NF DE40LFR	575	Hybrid Diesel	40	37	Active	5FYH5FV016C030986	449,300	012X152	CATA
576	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	849,357.52		12	NF DE40LFR	576	Hybrid Diesel	40	37	Active	5FYH5FV036C030987	478,311	012X153	CATA
577	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	849,357.52		12	NF DE40LFR	577	Hybrid Diesel	40	37	Active	5FYH5FV056C030988	448,194	012X154	CATA
578	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2006	2006	4%	849,357.52		12	NF DE40LFR	578	Hybrid Diesel	40	37	Active	5FYH5FV076C030989	446,056	012X155	CATA
579	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	4%	823,283.52		12	NF DE40LFR	579	Hybrid Diesel	40	37	Active	5FYH5FV0X9B036358	375,195	066X861	CATA
580	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	4%	823,283.52		12	NF DE40LFR	580	Hybrid Diesel	40	37	Active	5FYH5FV019B036359	398,136	066X856	CATA
581	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	4%	823,283.52		12	NF DE40LFR	581	Hybrid Diesel	40	37	Active	5FYH5FV089B036360	389,609	066X854	CATA
582	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	1%	823,283.52		12	NF DE40LFR	582	Hybrid Diesel	40	37	Active	5FYH5FV0X9B036361	351,463	066X853	CATA
583	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	1%	823,283.52		12	NF DE40LFR	583	Hybrid Diesel	40	37	Active	5FYH5FV019B036362	372,099	066X864	CATA
584	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	1%	823,283.52		12	NF DE40LFR	584	Hybrid Diesel	40	37	Active	5FYH5FV019B036363	372,183	066X863	CATA
585	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2009	2009	12%	823,283.52		12	NF DE40LFR	585	Hybrid Diesel	40	37	Active	5FYH5FV059B036364	376,973	066X862	CATA

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
586	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2010	2010	12%	807,157.34		12	NF DE40LFR	586	Hybrid Diesel	40	37	Active	5FYH5FU03AB038118	290,373	066X871	CATA
587	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2010	2010	12%	807,157.34		12	NF DE40LFR	587	Hybrid Diesel	40	37	Active	5FYH5FU05AB038119	330,715	066X872	CATA
588	MB	40FT EXCELSIOR HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2011	2011	11%	788,136.56		12	NF XDE40	588	Hybrid Diesel	40	37	Active	5FYH8FU00BC039309	281,192	012X044	CATA
589	MB	40FT EXCELSIOR HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2011	2011	11%	788,136.56		12	NF XDE40	589	Hybrid Diesel	40	37	Active	5FYH8FU07BC039310	296,163	012X179	CATA
590	MB	40FT EXCELSIOR HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2011	2011	11%	788,136.56		12	NF XDE40	590	Hybrid Diesel	40	37	Active	5FYH8FU09BC039311	262,686	012X037	CATA
591	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2012	2012	11%	769,304.52		12	NF XDE40	591	Hybrid Diesel	40	37	Active	5FYH8FU03CB040493	260,851	012X161	CATA
592	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2012	2012	11%	769,304.52		12	NF XDE40	592	Hybrid Diesel	40	37	Active	5FYH8FU08CB040490	266,774	012X165	CATA
593	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2012	2012	11%	769,304.52		12	NF XDE40	593	Hybrid Diesel	40	37	Active	5FYH8FU0XCB040491	258,962	012X157	CATA
594	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2012	2012	11%	769,304.52		12	NF XDE40	594	Hybrid Diesel	40	37	Active	5FYH8FU01CB040492	215,538	012X158	CATA
595	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	595	Hybrid Diesel	40	37	Active	5FYH8FU03CC041489	245,916	100X367	CATA
596	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	596	Hybrid Diesel	40	37	Active	5FYH8FU0XCC41490	220,198	100X368	CATA
597	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	597	Hybrid Diesel	40	37	Active	5FYH8FU01CC041491	222,781	100X369	CATA
598	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	598	Hybrid Diesel	40	37	Active	5FYH8FU03CC041492	233,502	100X370	CATA
599	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	599	Hybrid Diesel	40	37	Active	5FYH8FU05CC041493	235,708	100X371	CATA
600	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	600	Hybrid Diesel	40	37	Active	5FYHBFU07CC041494	232,289	100X372	CATA
601	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	601	Hybrid Diesel	40	37	Active	5FYH8FU90CC041495	226,846	100X347	CATA
602	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	602	Hybrid Diesel	40	37	Active	5FYH8FU00CC041496	251,446	100X351	CATA
603	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	603	Hybrid Diesel	40	37	Active	5FYH8FU02CC041497	227,088	100X350	CATA
604	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2013	2013	11%	761,013.12		12	NF XDE40	604	Hybrid Diesel	40	37	Active	5FYH8FU04CC041498	240,712	100X349	CATA
605	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	605	Hybrid Diesel	40	37	Active	5FYH8FU00EB044374	175,835	100X354	CATA
606	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	606	Hybrid Diesel	40	37	Active	5FYH8FU02EB044375	180,953	100X353	CATA
607	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	607	Hybrid Diesel	40	37	Active	5FYH8FU04EB044376	180,757	100X352	CATA
608	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	608	Hybrid Diesel	40	37	Active	5FYH8FU06EB044377	190,218	100X366	CATA
609	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	609	Hybrid Diesel	40	37	Active	5FYH8FU08EB044378	163,293	100X365	CATA
610	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	737,489.10		12	NF XDE40	610	Hybrid Diesel	40	37	Active	5FYH8FU0XEB044379	175,972	100X364	CATA
611	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	743,396.50		12	NF XDE40	611	Hybrid Diesel	40	37	Active	5FYH8FU06FB046342	126,252	012X256	CATA
612	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2014	2014	11%	743,396.50		12	NF XDE40	612	Hybrid Diesel	40	37	Active	5FYH8FU08FB046343	131,775	012X060	CATA
613	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	11%	718,745.66		12	NF XDE40	613	Hybrid Diesel	40	37	Active	5FYH8FU0XFB46344	162,893	012X063	CATA
614	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	11%	718,745.66		12	NF XDE40	614	Hybrid Diesel	40	37	Active	5FYH8FU01FB046345	158,945	012X059	CATA
615	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	11%	718,745.66		12	NF XDE40	615	Hybrid Diesel	40	37	Active	5FYH8FU03FB046346	156,631	012X054	CATA
616	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	1%	718,745.66		12	NF XDE40	616	Hybrid Diesel	40	37	Active	5FYH8FU05FB046347	156,868	012X252	CATA
617	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	1%	718,745.66		12	NF XDE40	617	Hybrid Diesel	40	37	Active	5FYH8FU07FB046348	159,084	012X216	CATA
618	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	6%	718,745.66		12	NF XDE40	618	Hybrid Diesel	40	37	Active	5FYH8FU09FB046349	104,149	012X197	CATA
619	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2015	2015	6%	718,745.66		12	NF XDE40	619	Hybrid Diesel	40	37	Active	5FYH8FU05FB046350	153,146	012X202	CATA
620	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	620	Hybrid Diesel	40	37	Active	5FYH8FU07GC050346	78,589	106X745	CATA
621	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	621	Hybrid Diesel	40	37	Active	5FYH8FU09GC050347	81,334	106X746	CATA
622	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	622	Hybrid Diesel	40	37	Active	5FYH8FU00GC050348	84,631	106X747	CATA
624	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	624	Hybrid Diesel	40	37	Active	5FYH8FU09GC050350	78,041	106X749	CATA
625	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	625	Hybrid Diesel	40	37	Active	5FYH8FU00GC050351	84,484	106X750	CATA
626	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	626	Hybrid Diesel	40	37	Active	5FYH8FU02GC050352	80,914	106X751	CATA
627	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	6%	483,134.00		12	NF D40LF	627	Diesel Fuel	40	37	Active	5FYD4FV025B028928	408,085	106X730	CATA
628	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	6%	483,134.00		12	NF D40LF	628	Diesel Fuel	40	37	Active	5FYD4FV075B028925	430,207	106X712	CATA
629	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	6%	483,134.00		12	NF D40LF	629	Diesel Fuel	40	37	Active	5FYD4FV055B028924	372,443	106X713	CATA
630	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	6%	483,134.00		12	NF D40LF	630	Diesel Fuel	40	37	Active	5FYD4FV095B028926	447,703	106X992	CATA
631	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2005	2018	6%	483,134.00		12	NF D40LF	631	Diesel Fuel	40	37	Active	5FYD4FV005B028927	399,754	106X697	CATA
632	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2004	2018	6%	483,134.00		12	NF D40LF	632	Diesel Fuel	40	37	Contingency	5FYD2LVO14U027275	440,615	113X387	CATA
633	MB	NF D40LF (formerly COTA bus)	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Diesel	1	Each	2004	2018	6%	483,134.00		12	NF D40LF	633	Diesel Fuel	40	37	Contingency	5FYD2LVO34U027276	443,479	113X388	CATA
634	MB	40FT LF HYBRID BUS	Vehicles	Revenue Vehicles	Bus	Bus (40 ft) - Hybrid	1	Each	2016	2016	6%	708,085.14		12	NF XDE40	634	Hybrid Diesel	40	37	Active	5FYH8FU02GC050349	72,348	106X748	CATA
1053	DR	09 Ford Champion E450 190'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2009	2009	6%	105,645.75		7	Champion E450	1053	Diesel Fuel	25	15	Active	1DFDE45P29DA13844	263,016	012X240	TRANSDEV

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
1054	DR	08 Ford Champion E450 190'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2008	2008	6%	107,981.52		7	Champion E450	1054	Diesel Fuel	25	15	Active	1FD4E45P48DB59281	230,277	012X238	TRANSDEV
1055	DR	10 Ford Champion E450 23'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	6%	96,841.01		7	Champion E450	1055	Diesel Fuel	25	15	Active	1FD4E45P0ADA41144	199,142	012X189	TRANSDEV
1056	DR	10 Ford Champion E450 23'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	6%	96,841.01		7	Champion E450	1056	Diesel Fuel	25	15	Active	1FD4E45P8ADA24219	159,963	012X190	TRANSDEV
1057	DR	10 Ford Champion E450 23'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2010	2010	6%	96,841.01		7	Champion E450	1057	Diesel Fuel	25	15	Active	1FD4E45PXA24223	184,052	012X191	TRANSDEV
1058	DR	11 Ford Champion E450 190'	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2011	2011	6%	105,210.84		7	Champion E450	1058	Diesel Fuel	25	15	Inactive	1FD4E45P7ADA41142	144,104		CATA
1059	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1059	Gasoline	12	6	Active	1FD4E45S4DDA20497	200,897	012X245	TRANSDEV
1060	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1060	Gasoline	12	6	Active	1FD4E45S2DDA20496	268,013	012X244	TRANSDEV
1061	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1061	Gasoline	12	6	Active	1FD4E45S0DDA20500	259,210	012X246	TRANSDEV
1062	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1062	Gasoline	12	6	Active	1FD4E45S0DDA20495	251,819	012X248	TRANSDEV
1063	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1063	Gasoline	12	6	Active	1FD4E45S8DDA20499	240,476	012X243	TRANSDEV
1064	DR	13 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2013	2013	6%	98,349.00		7	Champion E450	1064	Gasoline	12	6	Active	1FD4E45S9DDA20494	196,572	012X209	TRANSDEV
1067	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	6%	88,174.93		7	Champion E450	1067	Gasoline	25	15	Active	1FD4E45S1FDA09895	136,280	012X043	TRANSDEV
1068	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	5%	88,174.93		7	Champion E450	1068	Gasoline	25	15	Active	1FD4E45S3FDA09896	153,145	012X222	TRANSDEV
1069	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	5%	88,174.93		7	Champion E450	1069	Gasoline	25	15	Active	1FD4E45S7FDA09898	137,927	012X208	TRANSDEV
1070	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	5%	88,174.93		7	Champion E450	1070	Gasoline	25	15	Active	1FD4E45S5FDA09897	130,295	012X220	TRANSDEV
1071	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	5%	88,174.93		7	Champion E450	1071	Gasoline	25	15	Active	1FD4E45S3FDA09901	159,167	012X249	TRANSDEV
1072	DR	15 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2015	2015	5%	88,174.93		7	Champion E450	1072	Gasoline	25	15	Active	1FD4E45S1FDA09900	120,402	066X243	TRANSDEV
1223	DR	13 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2013	2013	5%	43,682.92		4	Eldorado LF Vans	1223	Gasoline	12	7	Active	2C7WDGBG2DR651047	168,360	100X358	TRANSDEV
1225	DR	13 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2013	2013	5%	43,682.92		4	Eldorado LF Vans	1225	Gasoline	12	7	Active	2C7WDGBG6DR651049	191,387	100X360	TRANSDEV
1226	DR	13 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2013	2013	5%	43,682.92		4	Eldorado LF Vans	1226	Gasoline	12	7	Active	2C7WDGBG2DR651050	121,222	100X361	TRANSDEV
1227	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1227	Gasoline	12	7	Active	12C7WDGBGXER335154	176,454	012X253	TRANSDEV
1228	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1228	Gasoline	12	7	Active	12C7WDGBG3ER335156	172,229	012X056	TRANSDEV
1229	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1229	Gasoline	12	7	Active	12C7WDGBG5ER335157	175,041	012X236	TRANSDEV
1230	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1230	Gasoline	12	7	Active	12C7WDGBG7ER335158	168,204	066X848	TRANSDEV
1231	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1231	Gasoline	12	7	Active	12C7WDGBG9ER335159	230,798	012X156	TRANSDEV
1232	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	5%	42,234.40		4	Eldorado LF Vans	1232	Gasoline	12	7	Active	12C7WDGBG5ER335160	161,923	012X232	TRANSDEV
1233	DR	14 Dodge Eldorado LF van	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2014	2014	4%	42,234.40		4	Eldorado LF Vans	1233	Gasoline	12	7	Active	12C7WDGBG1ER335155	176,108	012X257	TRANSDEV
1234	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1234	Gasoline	12	6	Active	2C7WDGBG2FR599423	132,071	012X071	TRANSDEV
1235	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1235	Gasoline	12	6	Active	2C7WDGBGXFR599413	130,351	012X080	TRANSDEV
1236	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1236	Gasoline	12	6	Active	2C7WDGBG1FR599414	97,326	012X061	TRANSDEV
1237	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1237	Gasoline	12	6	Active	2C7WDGBG5FR599416	145,704	012X051	TRANSDEV
1238	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1238	Gasoline	12	6	Active	2C7WDGBG9FR599418	141,428	012X055	TRANSDEV
1239	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1239	Gasoline	12	6	Active	2C7WDGBG7FR599420	142,018	012X066	TRANSDEV
1240	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1240	Gasoline	12	6	Active	2C7WDGBG0FR599422	130,791	012X096	TRANSDEV
1241	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1241	Gasoline	12	6	Active	2C7WDGBG4FR599424	133,223	012X210	TRANSDEV
1242	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1242	Gasoline	12	6	Active	2C7WDGBG9FR599421	157,440	120X61	TRANSDEV
1243	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1243	Gasoline	12	6	Active	2C7WDGBG6FR599425	152,615	012X065	TRANSDEV
1244	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1244	Gasoline	12	6	Active	2C7WDGBG5FR599433	134,504	012X288	TRANSDEV
1245	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1245	Gasoline	12	6	Active	2C7WDGBG1FR599431	116,848	012X186	TRANSDEV
1247	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1247	Gasoline	12	6	Active	2C7WDGBG9FR614130	120,760	012X224	TRANSDEV
1248	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1248	Gasoline	12	6	Active	2C7WDGBG2FR614129	135,516	012X225	TRANSDEV
1249	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1249	Gasoline	12	6	Active	2C7WDGBG6FR605403	135,573	012X229	TRANSDEV
1250	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1250	Gasoline	12	6	Active	2C7WDGBG0FR614131	167,880	012X079	TRANSDEV
1251	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1251	Gasoline	12	6	Active	2C7WDGBG6FR614134	155,419	012X123	TRANSDEV
1252	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1252	Gasoline	12	6	Active	2C7WDGBG8FR614135	157,537	012X122	TRANSDEV
1253	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1253	Gasoline	12	6	Active	2C7WDGBG2FR614132	154,720	012X203	TRANSDEV
1254	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1254	Gasoline	12	6	Active	2C7WDGBG4FR614133	139,900	012X207	TRANSDEV
1255	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1255	Gasoline	12	6	Active	2C7WDGBG1FR614140	163,645	012X172	TRANSDEV
1256	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	3%	41,348.42		4	Braun LF Entervans	1256	Gasoline	12	6	Active	2C7WDGBG3FR614138	189,565	012X103	TRANSDEV

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
1257	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	3%	41,348.42		4	Braun LF Entervans	1257	Gasoline	12	6	Active	2C7WDGBG5FR614139	174,773	012X180	TRANSDEV
1258	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	3%	41,348.42		4	Braun LF Entervans	1258	Gasoline	12	6	Active	2C7WDGBGXF614136	181,459	012X068	TRANSDEV
1259	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1259	Gasoline	12	6	Active	2C7WDGBG3FR599432	155,213	012X090	TRANSDEV
1260	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	3%	41,348.42		4	Braun LF Entervans	1260	Gasoline	12	6	Active	2C7WDGBG7FR599417	190,331	012X087	TRANSDEV
1261	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	3%	41,348.42		4	Braun LF Entervans	1261	Gasoline	12	6	Active	2C7WDGBG0FR599419	154,691	012X110	TRANSDEV
1262	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1262	Gasoline	12	6	Active	2C7WDGBG8FR599409	155,536	012X187	TRANSDEV
1263	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1263	Gasoline	12	6	Active	2C7WDGBG3FR599415	140,525	012X162	TRANSDEV
1264	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1264	Gasoline	12	6	Active	2C7WDGBG6FR599408	146,682	012X039	TRANSDEV
1265	DR	15 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2015	2015	4%	41,348.42		4	Braun LF Entervans	1265	Gasoline	12	6	Active	2C7WDGBG6FR599411	180,501	012X188	TRANSDEV
1266	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1266	Gasoline	12	6	Active	2C7WDGBG8HR784059	43,988	106X744	TRANSDEV
1267	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1267	Gasoline	12	6	Active	2C7WDGBG9HR784085	48,432	012X233	TRANSDEV
1268	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1268	Gasoline	12	6	Active	2C7WDGBG9HR767500	42,672	100X356	TRANSDEV
1269	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1269	Gasoline	12	6	Active	2C7WDGBG9HR781185	51,231	012X176	TRANSDEV
1270	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1270	Gasoline	12	6	Active	2C7WDGBG9HR802231	54,107	012X173	TRANSDEV
1271	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1271	Gasoline	12	6	Active	2C7WDGBG8HR802303	49,988	012X235	TRANSDEV
1272	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1272	Gasoline	12	6	Active	2C7WDGBG6HR784092	52,699	012X175	TRANSDEV
1273	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1273	Gasoline	12	6	Active	2C7WDGBG5HR793107	51,715	106X798	TRANSDEV
1274	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1274	Gasoline	12	6	Active	2C7WDGBGXHR802254	43,834	100X359	TRANSDEV
1275	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1275	Gasoline	12	6	Active	2C7WDGBG9HR784071	52,824	012X167	TRANSDEV
1276	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1276	Gasoline	12	6	Active	2C7WDGBG2HR802264	50,436	012X195	TRANSDEV
1277	DR	2017 Dodge Braun entervans	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Mini-Van	1	Each	2017	2017	4%	38,923.70		4	Braun LF Entervans	1277	Gasoline	12	6	Active	2C7WDGBG7HR793111	44,374	012X204	TRANSDEV
1916	MB	28FT TROLLEY	Vehicles	Revenue Vehicles	Trolleybus	Trolleybus	1	Each	2009	2009	4%	433,698.74		10	NABI AH-28	1916	Diesel Fuel	28	28	Active	1N90182829A140198	111,087	066X855	CATA
1917	MB	28FT TROLLEY	Vehicles	Revenue Vehicles	Trolleybus	Trolleybus	1	Each	2009	2009	4%	433,698.74		10	NABI AH-28	1917	Diesel Fuel	28	28	Active	1N90182849A140199	106,537	066X865	CATA
6000	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2003	2018	4%	754,419.00		12	NF D60LF	6000	Diesel Fuel	60	49	Active	5FYD2UM073U025049	378,519	012X137	CATA
6001	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2003	2018	4%	754,419.00		12	NF D60LF	6001	Diesel Fuel	60	49	Active	5FYD2UM033U025050	349,219	012X138	CATA
6002	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2003	2018	4%	754,419.00		12	NF D60LF	6002	Diesel Fuel	60	49	Active	5FYD2UM053U025051	396,836	012X139	CATA
6003	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2003	2018	4%	754,419.00		12	NF D60LF	6003	Diesel Fuel	60	49	Active	5FYD2UM073U025052	408,696	012X140	CATA
6004	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2005	2018	4%	754,419.00		12	NF D60LF	6004	Diesel Fuel	60	49	Active	5FYD4YW095C028879	335,185	012X146	CATA
6005	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2005	2018	4%	754,419.00		12	NF D60LF	6005	Diesel Fuel	60	49	Active	5FYD4YW055C028880	324,012	012X147	CATA
6006	MB	60FT LF BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft)	1	Each	2005	2018	6%	754,419.00		12	NF D60LF	6006	Diesel Fuel	60	49	Active	5FYD4YW075C028881	346,851	012X148	CATA
6007	MB	60FT LF HYBRID ARTIC BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft) - Hybrid	1	Each	2007	2007	6%	1,173,132.83		12	NF DE60LFR	6007	Hybrid Diesel	60	49	Active	5FYH5YW047D032159	288,686	012X255	CATA
6008	MB	60FT LF HYBRID ARTIC BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft) - Hybrid	1	Each	2007	2007	6%	1,173,132.83		12	NF DE60LFR	6008	Hybrid Diesel	60	49	Active	5FYH5YW007C032160	319,719	012X259	CATA
6009	MB	60FT LF HYBRID ARTIC BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft) - Hybrid	1	Each	2007	2007	6%	1,173,132.83		12	NF DE60LFR	6009	Hybrid Diesel	60	49	Active	5FYH5YW027C032161	324,252	012X260	CATA
6010	MB	60FT LF HYBRID ARTIC BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft) - Hybrid	1	Each	2009	2009	6%	1,096,621.18		12	NF DE60LFR	6010	Hybrid Diesel	60	49	Active	1FYH5YU059B036314	250,361	066X851	CATA
6011	MB	60FT LF HYBRID ARTIC BUS	Vehicles	Revenue Vehicles	Bus	Articulated Bus (60 ft) - Hybrid	1	Each	2009	2009	6%	1,096,621.18		12	NF DE60LFR	6011	Hybrid Diesel	60	49	Active	5FYH5YU079B036315	261,446	066X852	CATA
9502	DR	08 Eldorado E-Z Rider II 30-foot bus	Vehicles	Revenue Vehicles	Bus	Bus (30 ft)	1	Each	2008	2008	6%	128,321.93		12	Eldorado E-Z Rider II	9502	Diesel Fuel	30		Active	1N9MLAC658C0844101	152,635	106X738	CATA
292	DR	14 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2014	2014	4%	90,024.90		7	Champion E450	292	Gasoline	25	19	Active	1FDPE4FS0EDB17231	103,250	106X876	CATA
294	DR	14 Ford Champion E450 190' gas	Vehicles	Revenue Vehicles	Vans, Cutaways and Autos	Medium-Duty Van	1	Each	2014	2014	2%	90,024.90		7	Champion E450	294	Gasoline	25	19	Active	1FDPE4FS4EDB17233	68,973	106X875	CATA
T11	SY	4WD PU SALT/PLOW	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2009	2009	0.5%	53,408.73		5	GMC 3500 HD	T11	Gasoline			Active	1GTHK74K79F124035	10,485	113X390	CATA
T20	SY	4WD UTILITY BODY (Maint. Service Truck)	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2003	2003	0.2%	155,408.28		5	FORD F550	T20	Gasoline			Active	1FDAF57P43ED34280	38,787	012X169	CATA
T23	SY	2WD UTILITY BODY	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2006	2006	0.7%	45,126.28		5	FORD F450	T23	Gasoline			Active	1FDXF46P16EA94924	113,291	012X171	CATA
T26	SY	4WD UTILITY BOX/PLOW	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2008	2008	0.4%	64,063.97		5	FORD F-350 4X4	T26	Gasoline			Active	1FDWF37Y58EB94685	16,004	012X271	CATA
T28	SY	2WD TRAILBLAZER	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2007	2007	1.1%	26,953.24		4	CHEV TRAILBLAZER	T28	Gasoline			Active	1GNDS13S272260761	85,337	012X283	CATA
T29	SY	2WD TRAILBLAZER	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2007	2007	1.1%	26,953.24		4	CHEV TRAILBLAZER	T29	Gasoline			Active	1GNDS13S272281948	77,381	012X284	CATA
T30	SY	4WD TRAILBLAZER	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2007	2007	1.0%	29,923.90		4	CHEV TRAILBLAZER	T30	Gasoline			Active	1GNDT13S772240132	113,289	012X285	CATA
T31	SY	4WD TRAILBLAZER	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2007	2007	1.0%	29,923.90		4	CHEV TRAILBLAZER	T31	Gasoline			Active	1GNDT13S372264458	77,474	012X286	CATA
T32	SY	4WD CHEVY TAHOE	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2013	2013	0.7%	34,921.18		5	CHEV K1500	T32	Gasoline			Active	1GNSK2E00DR230380	93,034	012X070	CATA
T33	SY	4WD CHEVY TAHOE	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2013	2013	0.7%	34,921.18		5	CHEV K1500	T33	Gasoline			Active	1GNSK2E0DR227689	77,770	012X227	CATA
T34	SY	4WD CHEVY TAHOE	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2013	2013	0.7%	34,921.18		5	CHEV K1500	T34	Gasoline			Active	1GNSK2E0XDR227728	65,184	012X228	CATA

ID	Mode	Description	Category	Sub-Category	Element	Sub-Element	Qty	Unit	Date Built	Cost Yr	Soft Cost	Total Replacement Cost	Cdtn Rtg	ULB	Make Model	Agency ID	Fuel Type	Vehicle Length	Seating	Lifecycle Status	VIN	Mileage	License Number	Operator
T35	SY	SIERRA 4WD PU	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2013	2013	0.8%	29,937.15		5	GMC 1500	T35	Gasoline			Active	1GTR2TE74DZ382625	56,386	106 X 758	CATA
T36	SY	4WD UTILITY BOX/PLOW	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2016	2016	0.4%	56,911.78		5	FORD F-350 4X4	T36	Gasoline			Active	1FDRF3F65GEA99751	28,035	012X206	CATA
T37	SY	4WD UTILITY BOX/PLOW	Vehicles	Non-Revenue Vehicles	Truck	-	1	Each	2016	2016	0.4%	56,911.78		5	FORD F-350 4X4	T37	Gasoline			Active	1FDRF3F63GEA99750	30,593	012X199	CATA
T65	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T65	Gasoline			Active	1GNKRFED5HJ297566	20,955	106X754	CATA
T66	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T66	Gasoline			Active	1GNKRFED2HJ299548	21,561	106X755	CATA
T67	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T67	Gasoline			Active	1GNKRFED4HJ300666	20,819	106X756	CATA
T68	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T68	Gasoline			Active	1GNKRFED2HJ301914	22,500	106X757	CATA
T69	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T69	Gasoline			Active	1GNKRFED0HJ307694	21,700	106X762	CATA
T70	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T70	Gasoline			Active	1GNKRFED5HJ309375	21,297	106X761	CATA
T71	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T71	Gasoline			Active	1GNKRFED3HJ305972	21,051	106X760	CATA
T72	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T72	Gasoline			Active	1GNKRFED0HJ308604	21,402	106X759	CATA
T73	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T73	Gasoline			Active	1GNKRFED1HJ308353	2,422	CB 57695	CATA
T74	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T74	Gasoline			Active	1GNKRFED0HJ302401	19,472	106X763	CATA
T75	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T75	Gasoline			Active	1GNKRFED5HJ302801	11,580	106X764	CATA
T76	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T76	Gasoline			Active	1GNKRFED6HJ297091	4,796	106X765	CATA
T77	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T77	Gasoline			Active	1GNKRFED6HJ303908	7,997	106X766	CATA
T78	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T78	Gasoline			Active	1GNKRFEDXHJ302843	6,439	106X767	CATA
T79	SY	CHEVROLET TRAVERSE	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2017	2017	0.8%	24,581.80		4	CHEV TRAVERSE	T79	Gasoline			Active	1GNKRFED7HJ307921	4,986	106X768	CATA
V02	SY	VAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2004	2004	0.6%	60,730.16		4	DODG 2500 SPRINTER	V02	Diesel Fuel			Active	WD2PD644245677724	33,156	012X167	CATA
V60	SY	DODGE CARAVAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2010	2010	1.0%	25,882.38		4	DODG CARAVAN	V60	Gasoline			Active	2D4RN4DE2AR462639	20,233	012X159	CATA
V61	SY	DODGE CARAVAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2010	2010	1.0%	25,882.38		4	DODG CARAVAN	V61	Gasoline			Active	2D4RN4DE9AR462637	41,348	012X192	CATA
V62	SY	DODGE CARAVAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2010	2010	1.0%	25,882.38		4	DODG CARAVAN	V62	Gasoline			Active	2D4RN4DE0AR462638	36,020	012X038	CATA
V63	SY	DODGE CARAVAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2013	2013	0.9%	25,574.12		4	DODG CARAVAN	V63	Gasoline			Active	2C4RDGBG5DR617596	31,595	012X048	CATA
V64	SY	DODGE CARAVAN	Vehicles	Non-Revenue Vehicles	Car	-	1	Each	2013	2013	0.9%	25,574.12		4	DODG CARAVAN	V64	Gasoline			Active	2C4RDGBG7DR617597	38,473	012X046	CATA

# APPENDIX B. INVESTMENT PROJECT LISTS

## B.1 DETAILED VEHICLE PROJECT LIST

**Table B- 1 Project List for All Vehicles - Rehabilitations and Replacements - \$000s of YOY (2019-2038)**

Vehicle Type	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Articulated Bus (60 ft)	3,108	2,401	2,473	1,698	-	-	557	717	443	-	-	-	4,432	5,706	3,526	-	-	-	794	1,022
Bus (<30 ft) - Hybrid	-	-	501	-	-	-	-	-	-	-	-	-	673	-	-	-	-	-	-	-
Bus (30 ft)	-	-	140	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-
Bus (40 ft) - Diesel	9,466	6,670	8,429	5,655	1,680	2,307	7,843	6,854	5,295	6,233	401	551	12,771	10,669	8,581	8,063	5,590	3,290	11,182	9,249
Medium-Duty Van	2,050	1,442	824	419	204	421	-	1,887	1,773	1,687	516	251	518	-	2,320	2,180	1,246	634	1,188	637
Mini-Van	439	614	633	665	495	691	712	749	557	778	801	843	627	876	902	949	705	986	1,015	1,068
Heavy-Duty Van	-	920	-	-	-	-	-	-	-	-	-	1,237	-	-	-	-	-	-	-	-
Non-Revenue Vehicles	206	552	324	249	259	123	695	469	261	169	204	911	513	156	265	355	1,022	428	259	441
<b>Total Cost for Rehab/Replace</b>	<b>15,270</b>	<b>12,599</b>	<b>13,323</b>	<b>8,687</b>	<b>2,638</b>	<b>3,543</b>	<b>9,807</b>	<b>10,675</b>	<b>8,329</b>	<b>8,867</b>	<b>1,923</b>	<b>3,793</b>	<b>19,533</b>	<b>17,406</b>	<b>15,794</b>	<b>11,547</b>	<b>8,563</b>	<b>5,338</b>	<b>14,438</b>	<b>12,417</b>

**Table B-2 Project List for All Vehicles – Vehicle Counts for Replacements Only (2019-2038)**

Vehicle Type	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Articulated Bus (60 ft)	4	3	3	2	-	-	-	-	-	-	-	-	4	5	3	-	-	-	-	-
Bus (<30 ft) - Hybrid	-	-	2	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Bus (30 ft)	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Bus (40 ft) - Diesel	19	13	11	9	3	4	10	8	7	7	-	-	16	13	10	9	7	4	10	8
Medium-Duty Van	19	14	8	4	2	4	-	14	14	13	4	2	4	-	14	14	8	4	7	4
Mini-Van	10	14	14	15	10	14	14	15	10	14	14	15	10	14	14	15	10	14	14	15
Heavy-Duty Van	-	2	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Non-Revenue Vehicles	6	11	9	9	7	4	13	12	6	5	6	16	9	4	7	9	13	7	6	10
<b>Total Replacements</b>	<b>58</b>	<b>57</b>	<b>48</b>	<b>39</b>	<b>22</b>	<b>26</b>	<b>37</b>	<b>49</b>	<b>37</b>	<b>39</b>	<b>24</b>	<b>35</b>	<b>45</b>	<b>36</b>	<b>49</b>	<b>47</b>	<b>38</b>	<b>29</b>	<b>37</b>	<b>37</b>

**Table B- 3 Project List for All Vehicles - Replacements Only - \$000s of YOE (2019-2038)**

Vehicle Type	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Articulated Bus (60 ft)	3,108	2,401	2,473	1,698	-	-	-	-	-	-	-	-	4,432	5,706	3,526	-	-	-	-	-
Bus (<30 ft) - Hybrid	-	-	501	-	-	-	-	-	-	-	-	-	673	-	-	-	-	-	-	-
Bus (30 ft)	-	-	140	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-
Bus (40 ft) - Diesel	9,455	6,663	5,807	4,894	1,680	2,307	5,942	4,896	4,413	4,545	-	-	11,352	9,500	7,527	6,977	5,590	3,290	8,472	6,981
Medium-Duty Van	2,050	1,442	824	419	204	421	-	1,887	1,773	1,687	516	251	518	-	2,320	2,180	1,246	634	1,188	637
Mini-Van	439	614	633	665	495	691	712	749	557	778	801	843	627	876	902	949	705	986	1,015	1,068
Heavy-Duty Van	-	920	-	-	-	-	-	-	-	-	-	1,237	-	-	-	-	-	-	-	-
Non-Revenue Vehicles	206	552	324	249	259	123	695	469	261	169	204	911	513	156	265	355	1,022	428	259	441
<b>Total Cost for Rehab/Replace</b>	<b>15,259</b>	<b>12,593</b>	<b>10,701</b>	<b>7,926</b>	<b>2,638</b>	<b>3,543</b>	<b>7,349</b>	<b>8,000</b>	<b>7,004</b>	<b>7,179</b>	<b>1,521</b>	<b>3,242</b>	<b>18,114</b>	<b>16,237</b>	<b>14,741</b>	<b>10,461</b>	<b>8,563</b>	<b>5,338</b>	<b>10,933</b>	<b>9,126</b>

**Table B- 4 Project List for All Vehicles - Rehabilitations Only - \$000s of YOE (2019-2038)**

Vehicle Type	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Articulated Bus (60 ft)	-	-	-	-	-	-	557	717	443	-	-	-	-	-	-	-	-	-	794	1,022
Bus (<30 ft) - Hybrid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bus (30 ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bus (40 ft) - Diesel	11	7	2,621	761	-	-	1,901	1,958	883	1,688	401	551	1,419	1,169	1,054	1,085	-	-	2,711	2,269
Medium-Duty Van	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mini-Van	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heavy-Duty Van	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Revenue Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Cost for Rehab/Replace</b>	<b>11</b>	<b>7</b>	<b>2,621</b>	<b>761</b>	<b>-</b>	<b>-</b>	<b>2,458</b>	<b>2,675</b>	<b>1,325</b>	<b>1,688</b>	<b>401</b>	<b>551</b>	<b>1,419</b>	<b>1,169</b>	<b>1,054</b>	<b>1,085</b>	<b>-</b>	<b>-</b>	<b>3,505</b>	<b>3,291</b>

## B.2 DETAILED FACILITY PROJECT LIST

Table B- 5 Project List for Admin./Maint. Facility - \$000s of YOY (2019-2038)

Description	ULB	Original Date Built	Replacement Due	Condition	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
CATA Admin - Plumbing - Fixtures -First Floor	15	1978	2019	4	0	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Site-Concrete	20	1978	2019	2	0	364	375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Air Compressor	20	1987	2019	3	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Electrical - Interior Lighting	15	1998	2019	3	21	21	22	23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Dies./DEF Refilling Station	12	2002	2019	3	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Gasoline Refilling Station Tank & Pump	12	2002	2019	3	0	0	0	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Bus Washer	20	2003	2023	3	0	0	0	0	939	967	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Lifts - Mobile - Wired	12	2004	2019	2	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Fluid Management System	12	2004	2019	3	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Articulated Lifts - Fixed: In Floor	12	2004	2019	3	0	0	317	0	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Roof Membrane - Stg. Area Middle	15	2001	2019	2	0	0	545	561	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Air Compressor	20	1996	2019	3	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Central Vacuum	15	2002	2019	3	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Plumbing - Maint Shop	40	1978	2019	3	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Plumbing - SA Middle	40	1978	2019	3	0	0	136	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Brake Lathe	15	2003	2019	3	234	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Plumbing - First Floor	40	1978	2019	4	0	0	0	0	0	0	0	0	116	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Fire Protection	15	2004	2019	3	0	524	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Plumbing - Fixtures	15	2004	2019	3	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Roof -Membrane -Maint. Shop N	15	2004	2019	3	0	0	0	0	0	0	466	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Overhead Doors	15	2004	2019	4	69	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Building Boiler - Second Floor	12	2007	2019	3	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - HVAC	12	2007	2019	4	743	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Wireless Portable Fareboxes	12	2007	2019	4	0	0	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Stanley Stack	20	2000	2020	4	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Lifts - Fixed: Parallelogram	20	2002	2022	3	0	0	0	231	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Building Generators-1	15	2006	2021	3	0	0	402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Substructure - Maint Shop	50	1978	2028	3	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Substructure - SA Middle	50	1978	2028	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Electrical- SA Maint. Shop	50	1978	2028	4	0	0	0	0	0	0	0	0	0	148	153	157	162	167	0	0	0	0	0	0
CATA Admin - Shell- First Floor	50	1978	2028	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Shell - Maint Shop	50	1978	2028	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Substructure	50	1978	2028	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Electrical - Interior Lighting	15	2007	2022	3	0	0	0	164	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Plumbing - Fixtures - Second Floor	15	2007	2022	4	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Fire Protection	15	2007	2022	4	0	0	0	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Stanley Stack	20	2004	2024	4	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Brake Lathe	15	2008	2023	3	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Roof - Membrane-Second Floor	20	2006	2026	4	0	0	0	0	0	0	0	315	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - HVAC - SA S	12	2011	2023	3	0	0	0	0	0	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Description	ULB	Original Date Built	Replacement Due	Condition	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
CATA Maint - HVAC - SA Middle	12	2011	2023	3	0	0	0	0	0	0	1277	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - HVAC - SA N	12	2011	2023	3	0	0	0	0	0	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Building Boiler - First Floor	12	2011	2023	4	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Electrical - Exterior Lighting	20	2007	2027	3	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
CATA Admin - Site	20	2007	2027	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Interiors	20	2007	2027	4	25	26	26	27	28	29	30	30	31	32	33	34	35	36	37	39	40	41	42	43
CATA Maint - Roof Membrane - Stg. Area S	15	2011	2026	4	0	0	0	0	0	0	0	787	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Overhead Doors	15	2011	2026	4	0	0	0	0	0	0	0	0	99	76	105	0	0	0	0	0	0	0	0	0
CATA Maint - Bulk Fluid Tanks	25	2007	2032	3	0	0	0	0	0	0	0	0	0	0	0	0	0	306	0	0	0	0	0	0
CATA Admin - Conveyance	25	2007	2032	4	0	0	0	0	0	0	0	0	0	0	0	0	0	133	0	0	0	0	0	0
CATA Maint - Lifts - Fixed: In Floor	12	2013	2025	3	0	0	0	0	0	0	266	547	564	581	0	0	0	0	0	0	0	0	0	0
CATA Maint - Propane Refueling Station	15	2013	2028	4	0	0	0	0	0	0	0	0	0	0	0	337	0	0	0	0	0	0	0	0
CATA Maint - Roof Membrane - Stg. Area SE	15	2012	2027	4	0	0	0	0	0	0	0	0	78	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Site - Asphalt	20	2011	2031	3	0	0	0	0	0	0	0	0	0	0	0	0	43	45	46	47	49	50	52	53
CATA Maint - Interiors	20	2011	2031	3	127	131	135	139	143	148	152	156	161	166	171	176	181	187	192	198	204	210	217	223
CATA Maint - Plumbing - Maint N	40	2004	2044	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Roof Membrane - Stg. Area N	20	2011	2031	4	0	0	0	0	0	0	0	0	0	0	0	0	1469	0	0	0	0	0	0	0
CATA Maint - Building Generators-2	15	2013	2028	4	0	0	0	0	0	0	0	0	0	0	171	0	0	0	0	0	0	0	0	0
CATA Admin - Roof - Membrane-First Floor	20	2012	2032	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	614	0	0	0	0
CATA Maint - Substructure - Maint Shop N	50	2004	2054	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Electrical- Maint. N	50	2004	2054	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Shell - Maint Shop N	50	2004	2054	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Plumbing - Second Floor	40	2007	2047	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Mohawk 16,000 lbs Above Ground	15	2014	2029	4	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
CATA Maint - Fall Protection	20	2013	2033	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0	0
CATA Maint - Lifts - Mobile - Wireless	12	2015	2027	4	0	0	0	0	0	0	0	0	0	0	206	0	0	0	0	0	0	0	0	0
CATA Admin - Electrical	50	2007	2057	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Admin - Shell- Second Floor	50	2007	2057	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Plumbing - SA N	40	2011	2051	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Plumbing - SA S	40	2011	2051	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Electrical - Exterior Lighting	20	2015	2035	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0
CATA Maint - Substructure - SA N	50	2011	2061	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Substructure - SA S	50	2011	2061	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Electrical- SA Maint. N	50	2011	2061	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Shell - SA	50	2011	2061	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CATA Maint - Roof Membrane - Maint. Shop	20	2016	2036	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	469	483	498
<b>Total</b>					<b>1724</b>	<b>1220</b>	<b>2032</b>	<b>1724</b>	<b>2248</b>	<b>1832</b>	<b>2190</b>	<b>1887</b>	<b>1049</b>	<b>1103</b>	<b>860</b>	<b>704</b>	<b>1891</b>	<b>874</b>	<b>318</b>	<b>898</b>	<b>293</b>	<b>828</b>	<b>794</b>	<b>818</b>

### B.3 DETAILED STATION PROJECT LIST

**Table B- 6 Project List for CTC - \$000s of YOE (2019-2038)**

Description	ULB	Original Date Built	Replacement Due	Condition	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
CTC Roof - Membrane	20	1998	2019	2	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTC Site	20	1998	2019	2	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTC Interiors	20	1998	2019	3	14	14	14	15	15	16	16	17	17	18	18	19	19	20	21	21	22	23	23	24
CTC HVAC	12	2006	2019	3	0	0	207	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTC Roof - Metal	40	1998	2038	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	293
CTC Plumbing	40	1998	2038	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123
CTC Fire Protection	15	1998	2019	4	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTC Plumbing - Fixtures	15	1998	2019	4	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTC Electrical - Exterior Lighting	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	0	0
<b>Total</b>					<b>215</b>	<b>265</b>	<b>221</b>	<b>295</b>	<b>15</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>115</b>	<b>23</b>	<b>23</b>	<b>440</b>

**Table B- 7 Project List for MSU-Shaw Parking Ramp - \$000s of YOE (2019-2038)**

Description	ULB	Original Date Built	Replacement Due	Condition	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
MSU Interiors - Furniture	20	2000	2020	4	0	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4
MSU Site - Concrete pavement	20	2000	2020	4	0	343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>					<b>0</b>	<b>345</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>

**Table B- 8 Project List for Multimodal Gateway - \$000s of YOE (2019-2038)**

Description	ULB	Original Date Built	Replacement Due	Condition	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Multi. Modal Gateway HVAC	12	2015	2027	4	0	0	0	0	0	0	0	0	0	0	167	0	0	0	0	0	0	0	0	0
Multi. Modal Gateway Lighting	15	2015	2030	4	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0
Multi. Modal Gateway Plumbing - Fixtures	15	2015	2030	4	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0
Multi. Modal Gateway - Exterior Lighting	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	0	0	0
Multi. Modal Gateway Interiors <sup>10</sup>	20	2015	2035	4	6	6	6	7	7	7	7	7	8	8	8	8	8	9	9	9	10	10	10	10
Multi. Modal Roof	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	461	0	0	0
Multi. Modal Gateway Shell <sup>11</sup>	20	2015	2035	4	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	22	22	23	24	24
Multi. Modal. Gateway Site - Asphalt	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	834	859	0
Multi. Modal. Gateway Site - Concrete	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	285	294	0	0	0
Multi. Modal Gateway Electronic Signage & Graphics	20	2015	2035	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92	0	0
Multi. Modal Gateway Plumbing	40	2015	2055	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi. Modal. Gateway Electrical	50	2015	2065	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi. Modal Gateway Substructure	50	2015	2065	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi. Modal Gateway Fire Protection	15	2015	2030	4	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0
<b>Total</b>					<b>20</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>193</b>	<b>246</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>316</b>	<b>882</b>	<b>958</b>	<b>892</b>	<b>35</b>

<sup>10</sup> All costs for interiors are annualized lifecycle cost  
<sup>11</sup> 2% Annual capital maintenance



**CAPITAL AREA TRANSPORTATION AUTHORITY**  
4615 Tranter Street, Lansing, Michigan 48910