



## CITY OF ATLANTA

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DEPARTMENT OF PROCUREMENT  
Adam L. Smith, Esq., CPPO, CPPB, CPPM, CPP,  
CIPC, CISCC, CIGPM, CPPC  
Chief Procurement Officer  
[asmith@atlantaga.gov](mailto:asmith@atlantaga.gov)

Kasim Reed  
Mayor

November 8, 2016

Dear Potential Bidders:

**Re: FC-9139, Emergency On-Call Repair and Maintenance For Atlanta  
Streetcar Track System**

Attached is one (1) copy of **Addendum No. 3**, which is hereby made a part of the above-referenced project.

For additional information, please contact Elvis G. Gibbs, Business and Federal Transit Administration Procurement Manager, at (404)-865-8704 or (470)-230-0242, or by email at [eggibbs@atlantaga.gov](mailto:eggibbs@atlantaga.gov).

Sincerely,

A handwritten signature in blue ink that reads "Adam L. Smith".

Adam L. Smith

ALS/egg



ADDENDUM NO. 3

This Addendum No. 3 forms a part of the Invitation To Bid and modifies the original solicitation package and any prior Addenda as noted below and is issued to incorporate the following:

- **Extension of Question and Answer Period:**  
The deadline to submit questions has been extended to **Wednesday, November 16, 2016 at 2:00 P.M. EST.**
- **Extension of Bid Due Date:**  
The Bid due date has been extended to **Monday, November 28, 2016 at 2:00 P.M. EST.**
- **Revision of Exhibit A, Scope of Services/Work**  
Exhibit A, Scope of Services/Work is hereby removed and replaced with a revised Exhibit A, Scope of Services/Work dated 11/8/16 attached hereto as Attachment No. 1.
- **Revision of Exhibit A.1, Bid Form**  
Exhibit A.1, Bid Form is hereby removed and replaced with a revised Exhibit A.1, Bid Form dated 11/8/16 attached hereto as Attachment No. 2.

Addendum No. 3 for FC-9139, Emergency On-Call Repair and Maintenance For Atlanta Streetcar Track System is available for pick-up in the Plan Room: City Hall, 55 Trinity Avenue, Suite 1900.

**The Bid due date HAS been modified and Bids are due on Monday, November 28, 2016 and should be time stamped in no later than 2:00 P.M. EST and delivered to the address listed below:**

Adam L. Smith, Esq., CPPO, CPPB, CPPM,  
CPP, CIPC, CISCC, CIGPM, CPPC  
Chief Procurement Officer  
Department of Procurement  
55 Trinity Avenue, S. W.  
City Hall South, Suite 1900  
Atlanta, Georgia 30303

**\*\* All other pertinent information is to remain unchanged\*\***

**Acknowledgment of Addendum No. 3**

Bidders must sign below and return this form with your bid to the Department of Procurement, 55 Trinity Avenue, City Hall South, Suite 1900, Atlanta, Georgia 30303, as acknowledgment of receipt of this Addendum.

This is to acknowledge receipt of **Addendum No. 3, FC-9139, Emergency On-Call Repair and Maintenance for Atlanta Streetcar Track System** on this the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
Legal Company Name of Bidder

\_\_\_\_\_  
Signature of Authorized Representative

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

# **Attachment No. 1**

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## **EXHIBIT A, SCOPE OF SERVICES/WORK**

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## **1. System Overview**

The power required to operate electric rail vehicles over Atlanta Streetcar (ASC) system is delivered through a network of electrical distribution lines and facilities. ASC's traction power distribution system uses various protective devices to ensure high level of reliability, and includes many safeguards and controls to ensure that operations and maintenance employees can work safely and confidently in its vicinity. The ASC running vehicle power is provided by a network of overhead contact system poles and wires.

### **1.1 Rail System Stations and Services**

The Atlanta Streetcar System consists of four (4) Siemens S-70 light rail vehicles, twelve (12) stops, and 2.7 miles of imbedded track comprised solely of at-grade rail sections. The Streetcar's alignment is located in the roadway Right-of-Way and share travel space with automotive and pedestrian traffic. Powered by an overhead contact system, Streetcar vehicles operate at speeds of up to 35 miles per hour on standard fifteen-minute headways. Additional service may also be provided where chartered or in response to special events.

Each of the twelve stops consists of a raised platform located in the sidewalk area and one in the median of Edgewood Avenue. Streetcar stops are low, concrete platforms that allow for level boarding of the streetcar vehicles. Stops are configured with a simple railing and modern amenities, including a shelter, bench, fare collection equipment, lighting and signage.

The City of Atlanta is the sole owner of all stops and right-of way on which the Streetcar operates, and does not share track with any other passenger or freight rail system.

### **1.2 Vehicle Maintenance Facility**

The Atlanta Streetcar's Vehicle Maintenance Facility (VMF) is located on Auburn Avenue under the I-75/85 overpass. From this location, the City of Atlanta stores all four streetcars. The VMF support streetcar periodic safety inspection, routine and heavy maintenance, and repair service.

### **1.3 Traction Power System Elements**

The Traction Power System is comprised of two functional subsystems; the Traction Power Substations (TPSS) and the Overhead Contact System (OCS). The TPSS contains all of the necessary equipment to receive electric power from utilities and deliver it in usable form to the OCS. The major elements of the TPSS include high-voltage AC switchgear, transformers, rectifiers, DC switchgear, and DC feeders and auxiliary equipment.

The OCS contains all of the elements required for the delivery of power from the TPSS to the vehicles along the alignment. These major elements include the messenger and trolley wires, hangers, and jumpers, all in span-components, supporting structures, poles, and grounding system.

### **1.4 Track System**

Train dynamics, track geometry and track design, location of the track, maximum speeds over the area and any other factors that could negatively influence the severity of the conditions found must be taken into consideration when evaluating the proper action(s) to be taken.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

The strategy of maintaining the track system is focused on conducting preventive maintenance to avoid failures that could interrupt ASC service. Reaching this goal requires an effective program of inspection, the anticipation of failures caused by age and wear to the ASC infrastructure, and preemptive corrective action.

All ASC maintenance practices for rail track system components and equipment are in accordance with APTA and OSHA standards, original equipment manufacturers recommendations, and the City of Atlanta Streetcar Track Maintenance program.

## **2. Required Training**

Persons assigned to manage, supervise, inspect, maintain, calibrate and/or test ASC track system must be qualified personnel trained on the system and equipment they will be required to maintain as defined under the guidelines of APTA RT-FS-S-002-02, Standard for Rail Transit Track Inspection and Maintenance, as shown in Attachment B, and 49 CRF 213, Track Safety Standards, as shown in Attachment C.

## **3. Documentation Control**

All track system preventive maintenance, inspection, repair, testing calibration, adjustment and corrective action will be documented in hard copy and electronic digital format. All records will be made available to ASC for maintenance and inspection verification and transmitted to ASC system managers on a monthly basis.

## **A. Scope of Services To Be Provided**

The purpose of this solicitation is to secure a qualified contractor for track inspection, maintenance, repairs and training services for the Atlanta Streetcar Track System to supplement the preventative maintenance and periodic inspection performed by the ASC operations and maintenance personnel.

In the event any damage is discovered to the ASC track system, the ASC will notify the contractor and a condition assessment will be conducted and will be assigned a priority. A corrective action plan will be put into action.

The Contractor shall provide the following on an as-needed basis:

1. Track Emergency On-Call Repair;
2. Track Minor Repair and Major Repair; and
3. Track Maintenance and Repair Qualification Training.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

**Special Inspection:** In the event of fire, flood, seismic activity, severe storm, or any other occurrence, which might damage the track system, the Contractor will inspect the track system as soon as possible after the occurrence. Any defects that are reported by the public and ASC employees shall be investigated immediately by the Contractor at which time appropriate corrective action shall be taken.

## **a. Condition Assessment and Prioritization:**

A condition prioritization system shall be used to conform to the following:

1. The condition prioritization system shall be as described below; and
2. Any notification that the track system does not comply with the standards shown herein shall be reported along with the condition using the hierarchy listed below, and the required corrective action shall be taken.

### **PRIORITY # 1**

Under this designation, the qualified Contractor and ASC personnel detecting such condition shall make every effort to correct the condition immediately, and evaluate whether to allow operations to continue or to place the track out of service immediately. If operation is allowed to continue, the person making the decision to keep the tracks operational must not leave the scene until relieved or until the defect is repaired. When walking a streetcar over such a condition, each streetcar shall be stopped short of the defect and the person on the ground shall communicate the situation to the streetcar operator.

Movements of the ASC vehicle shall be made at "RESTRICTED SPEED with EXTREME CAUTION"; that is proceeding no faster than 2 mph walking speed; prepared to stop at two car lengths short of a visible object on the roadway; ready to make a fast stop; watching rails and switches for the rote and looking for anything on the roadbed that is unsafe to pass.

### **PRIORITY # 2**

Conditions under this priority designation require inspection by a qualified person within 24 hours of the detection of the faulty condition. The person investigating the condition of the ASC track system shall immediately determine whether a slow speed order is necessary and what work, if any, is required, and shall base these decisions on findings and factors, such as the type of defect, the location and permanent speed of the track in question. The Contractor shall make every effort to correct these defects as soon as practicable.

### **PRIORITY # 3**

Conditions under this priority designation include alerts to a track condition that affects the ride comfort qualities of the track and that degrade to a worse condition if left uncorrected. The Contractor shall establish work programs to correct these defects.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## **PRIORITY # 4**

Conditions under this priority designation identify defect conditions that do not require any immediate actions. These conditions may affect ride comfort qualities of the track, should they degrade to a worse condition. Uncorrected defects shall be recorded and the reports shall be used for scheduling future work. Remedial action for defects must be taken in accordance with the parameters set forth in this standard.

### **b. Corrective Action:**

#### **Approach**

1. Upon ASC's review of inspection findings and determination of prioritization, the contractor will be issued a Notice to Proceed for the commencement of work.
2. Emergency on-call repair and on call work will be monitored by the ASC per agreed-upon timeline, cost estimate and determined corrective action plan scope.
3. Daily status meetings between the Contractor and ASC personnel will take place at the job site or at the specified, designated ASC location.
4. The Contractor, or his/her representative shall be present at all briefings and/or meetings.
5. The Contractor shall write a Post-Incident/Action report, a copy of which shall be maintained in the ASC maintenance files.

## **B. Emergency On-Call Repair**

An emergency on-call repair is considered to be any repair of a known emergency track condition that is necessary to restore the system to normal operation, which has been assessed as Priority 1. During an emergency on-call, the Contractor shall return the track system to within 10% of the As-Built Construction Drawings and/or Record Drawings. If As-Built specification cannot be met due to time constraints, repairs shall be completed in order to restore system to normal operation and until As-Built specification restoration can be met.

As time is of the essence, the Contractor shall respond to the ASC Superintendent by phone within **four (4)** hours of being notified of known emergency condition of the track system. The Contractor shall be onsite within **forty-eight (48)** hours of being notified of the track condition, and shall be ready to perform emergency repairs to the City's track system, seven days per week, 24 hours per day, and shall assess the conditions with the City of Atlanta Streetcar Superintendent, and shall mutually agree with ASC Superintendent that an emergency repair is necessary to restore the track system to a normal operational condition.

The Contractor shall estimate the cost for emergency repairs at defined/disclosed rates as specified in this Contract. The Contractor shall provide a written estimate of emergency repair inclusive of all materials and labor before the commencement of work.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

The Contractor shall quote the repairs in accordance with authorization to perform track repairs, which shall be the sole discretion of the City. The parties shall agree as to the time frame necessary to complete the necessary repairs. In the event that both parties are unable to arrive at an agreement to complete the necessary repairs, they shall immediately escalate the matter and follow the Dispute Resolution Procedures, as provided in Exhibit E.

Upon the City's acceptance of the proposal, a Notice-to-Proceed will be issued, and the Contractor's proposal as accepted, will be incorporated in this contract.

The Contractor shall perform all authorized emergency repairs on the track system to address corrective actions for any deviations from manufacturer specification, damages, irregularities, mal-adjustments.

The Contractor shall furnish labor, tools and equipment, at its sole expense, as required to perform the emergency on-call repair services under this Contract. All of the services required hereunder shall be performed by Contractor and under the Contractor's supervision and all personnel engaged in the services shall be fully qualified, in accordance with APTA standards.

The Contractor shall supply the City's Contract Administrator all contact information where emergency personnel can be contacted after normal business hours, nights, holidays and week-ends.

Emergency repairs will be completed in accordance with APTA and OSHA standards, and original equipment manufacturers recommendations.

## **C. Minor and Major Repair**

A minor repair is any repair that is necessary to restore any known track condition to a normal operational condition, which has been assessed as either Priority 3 or Priority 4. A major repair is as any repair that is necessary to restore the major known track condition to a normal operational condition, which has been assessed as Priority 2.

As time is of the essence, the Contractor shall be onsite within **ninety-six (96)** hours of being notified of the track condition, seven days per week, 24 hours per day, and shall be ready to perform emergency repairs to the City's track system, seven days per week, 24 hours per day, and shall assess the conditions with the City of Atlanta Streetcar Superintendent, and shall mutually agree with ASC Superintendent that an emergency repair is necessary to restore the track system to a normal operational condition.

The Contractor's proposal shall identify its approach to the assignment based on the scope; personnel to be involved and the hours allocated; a proposed schedule; and a not-to-exceed price based on the rates established in this Contract, the hours allocated, a proposed fixed fee, and any out-of-pocket expenses.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

Upon the City's acceptance of the proposal, the city shall issue a Notice-to-Proceed, and the Contractor's proposal, as accepted, will be incorporated into this contract.

Contractor shall estimate the cost for minor or major repairs at pre-defined rates as specified in this Contract. Contractor shall provide a written estimate inclusive of all materials and labor before the commencement of work.

Repairs shall be quoted in accordance with the bid labor rates plus materials, and shall be authorized to be completed, which shall be the sole discretion of the City. Time to complete the work will be as agreed to by the parties.

The Contractor shall perform minor or major repairs of all authorized work on the track system to address corrective actions for any deviations from manufacturer specification, damages, irregularities, mal-adjustments.

The Contractor shall furnish labor, tools and equipment, at its sole expense, as required to perform the services under this Contract. All of the services required hereunder shall be performed by the Contractor or under the Contractor's supervision, and all personnel engaged in the services shall be fully-qualified in accordance with APTA standards.

The Contractor shall supply the City's Contract Administrator with the contact information where emergency personnel can be contacted after normal business hours, nights, holidays and week-ends.

Minor and major repairs for track system shall be performed in accordance with APTA and OSHA standards, original equipment manufacturers recommendations.

**GENERAL:** This specification describes the minimum acceptable requirements for the inspection, maintenance and emergency repair of street running embedded tracks for the City of Atlanta's Streetcar.

## **Specific services sought by the City of Atlanta include:**

- A. Inspections:** The Contractor must have the ability to inspect tracks as required by ASC intervals on foot or by riding over the track in a vehicle at a speed that allows detection of noncompliance with APTA standards. In the unusual event that a walking or riding inspection cannot be performed, inspection must be performed in a vehicle in a position in full view of the roadbed.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

**B. Roadbed:** The general condition of track area and paving shall be observed and if any of the following conditions are found which may jeopardize the safe movement of vehicles or pedestrians, corrective actions shall be taken.

- Debris in the vicinity of track, particularly in the flange-way and the area of track special work.
- Flange-way blocked with foreign material resulting in the wheel lifting to a level such that the wheel is no longer properly riding on the designed rail profile.
- Street surface higher than the top of rail that could result in equipment being stuck or damaged.
- Drainage and ventilation grates, manhole covers, crosswalk paver, passenger platform materials and any other such objects found to be fouling the track or obstructing the track in any way.
- Undermined track
- If the conditions listed below are found, the inspector shall identify the condition on the track inspection report.
  - Loose cobblestones, pavers or bricks
  - Potholes
  - Low paving around rails

**C. Embedded Track:** This track structure is completely covered except for the top of the track rail that is within the pavement.

- Flange-ways can be provided by performing a flange-way in the embedment material
- Embedded track is generally the standard for light rail transit routes constructed within public street

Defects detected as a result of the annual track geometry inspection shall be provided to the ASC Maintenance Superintendent, for corrective action. Defects shall be reported by the Contractor as prescribed below.

## **1 Gauge**

Measurements for track gauge on girder and tram rail may vary from gauge limits established by the Standard For Rail Transit Track Inspection and Maintenance APTA RT-FS-S-002-02. Gauge measurements and corresponding gauge tolerances that are unique to the ASC specific design, shall be documented in accordance with its condition assessment.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## 2 Track Flange-Way

Street track should have as much flange-way depth as the type of construction will allow and in accordance with the appropriate design of the system.

Flange-way depth shall be monitored by the Contractor and the ASC to insure that rail-wear does not create a flange-bearing condition. Any obstructions to the flange-way should be removed as soon as possible by either the Contractor or the ASC.

If part of the track structure (i.e. elasto-metric booting, rubber material, asphalt, or concrete, etc.) has begun to obstruct or diminish the depth of the flange-way, the problem should be addressed on a programmed basis, in accordance with the severity of the situation. Such situations shall require periodic measurement and monitoring by the Contractor and the ASC until corrected. Any flange-way depth problem or obstruction that would result in wheel climb or potential derailments must be rectified immediately.

ASC operates one standard track gauge, 56.5”.

### FRA Track Class Speeds

Over track that meets all requirements prescribed in this procedure for-----	The maximum allowable operating speed for passenger trains is---
Class 1 Track...	15
Class 2 Track...	30

	Operating Speed	Tread Batter	Weld Batter	
Gauge of Track	15 mph or less	.50 inches <sup>a</sup>	.38 inches <sup>b</sup>	for Class
	16 to 30 mph	.25 inches	.25 inches	

Class of track	Minimum Track Gage	Maximum Track Gage
Class 1 track...	56.00”	57.75”
Class 2 track...	56.06”	57.50”

## 3 Track Structure:

- Inspection of individual components is neither reasonably accomplished nor usually necessary, except for the rail. When deterioration of the track identified by defects in gauge, alignment and profiles and herein are found, repair of supporting structure shall be performed to correct defects.
- The alignment shall be inspected to ensure there is not encroachment to the dynamic envelope of the vehicle.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## 4 Rail:

- Rail Service Defects- If conditions listed below are found, an inspector must identify the conditions on the track inspection report and perform the action(s) shown in Table 1.
  - Internal
  - External

**Table 1 - Rail Defect remedial action**

Type rail defect	Longer than	Shorter than	Priority	Minimum remedial action
Broken rail on guard	Not applicable		3	A
Broken rail on guard – movement/pumping	Not applicable		3	B
Missing head/rail breakout	1"	2"	3	B
	2"	4"	2	C
	4"	-	1	D
Cracked joint/ weld area	1"	4"	3	A
	4"	-	1	E
Guard breakout	0"	1"	3	C,A
	1"	-	1	D
Cracked broken tram	Any Size		3	F

The Contractor and ASC personnel shall qualified to repair, adjust, maintain and restore the ASC Track System in accordance with APTA standard APTA RT-FS-S-002-02, and shall take the following remedial actions:

- A) Re-inspect every 7 days.
  - B) Limit operating speed over defective area to no more than 20 mph or less.
  - C) Limit operating speed over defective area to no more than 5 mph and repair within 24 hours.
  - D) Place the track out of service or operations only under qualified supervision.
  - E) Re-inspect area daily and repair to be completed within 7 days.
  - F) Schedule repair as severity warrants.
- Rail End and Weld Batter  
Any excessively battered rail ends or welds should be noted and recorded. Batter must be measured with a 36” straight edge and taper gauge. All measurements should be recorded.
  - Rail wear – Rail gauge face wear, head width and vertical wear shall be measured at the gauge line, etc. as required.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## 5 Special Track Work:

- Track switches, crossovers and frogs must be free of debris.
- Broken Switch or Frog Points
  - Limit operating speed over defective area to more than 10 mph, or less as determined by qualified person
  - Limit operating speed over defective area to no more than 5 mph and repair within 24 hours
  - Track is to be placed out of service or operations are to continue only under the supervision of a qualified person
  - Schedule repair as severity warrants. Example of repairs: Corrugation, Flaking
- For flange-bearing areas of special work, ASC has established maximum flange-way wear limits. Programmed action (build-up of the frog flange-way) is required if wear exceeds the limit or the special work exhibits signs of excessive contact with the wheel thread.
- All non-flange-bearing special trackwork components will be maintained to have a flange-way as described in section 3.2.
- The transition area (or riser) into and out of flange-bearing special work shall be maintained so as to provide as smooth a transition as possible within any prescribed maintenance limits. Proper transition will usually be evidenced by a gradual take-off and re-entry of the wheel tread on the railhead just before and after the flange-bearing special work, (that is, the worn area on the rail head will taper more gently). Poor transition will also be evidenced on the facing side of the special work (in the normal direction of rail traffic) by excessive wear at the transition point. In the worst cases, a significant impact may be exhibited as wheels enter or exit the flange-bearing area. This would be evidence of poor transition and would necessitate prompt attention.
- Track switches shall be monitored and, if conditions listed below are found, the Contractor and City's qualified personnel shall identify the conditions on the track inspection report and perform the action(s) shown in Table 2 below.
- Stock Rails  
Check Stock rails for gauge side overflow in the switch point area (Lipping) or obstructions which could prevent proper mating of the stock rail and switch point. Check to see that the stock rails are correctly seated within the riser plates.
- Switch Points  
The Contractor shall check Switch Points for any broken or badly worn points. Any gap between the points and stock rail within the first 6" shall be noted and reported to the ASC Superintendent ASAP.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

**Table 2 - Torque and mate switch conditions**

Conditions	Required Action
Tongue vertical wear	
3/16" below casting	Schedule for replacement
1/4" below casting	Replace within 30 days
Sharp Edge	Grind within 7 days to restore contour
Loose heel	Schedule to retighten within 3 says
Mate false grooves	
Over 3/16"	Repair within 7 days
Split through riser	Repair within 24 hours
Wheel cuts in switch casting	
3/16"	Repair within 30 days

## D. Track Maintenance and Repair Qualification Training

Due to the nature and hazards associated with work on high track components, Atlanta Streetcar maintenance personnel must meet minimum recommended qualifications to perform many inspection, maintenance and testing tasks. The ASC has determined its training needs to inspect, maintain and repair its track system, in accordance with APTA RT-FS-S-002-02. ASC shall ensure that its employees and/or contractors that perform periodic inspection, maintenance, and testing have the knowledge and skills necessary to safely and effectively perform the tasks assigned to them.

All training shall be in accordance with APTA RT-FS-S-002-02, Standard for Rail Transit Track Inspection and Maintenance.

The Objective of Track Maintenance and Repair Qualification Training is to provide instruction and training of track and wayside equipment maintenance procedures, including running surface, guide rails, power rails, switch, cabling, equipment box, etc.

At the completion of receiving track training, the objective for the ASC training program shall be to:

- a) To ensure special life/safety equipment is operational and reliable;
- b) To help rail transit systems incorporate safety considerations during the inspection and maintenance process;
- c) To identify inspection criteria and maintenance standards that provide a high level of passenger and personnel safety;
- d) To know and understand the requirements of the APTA standards;
- e) To detect deviations from these requirements; and

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

- f) To prescribe appropriate remedial action to correct or safely compensate for those deviations.

## **Provision of Training Requirements**

Each year and as needed, the Contractor will provide a comprehensive program of classroom, hands-on training for ASC Maintenance personnel to ensure their competence in understanding, operating, maintaining, and administrating the equipment, products, and systems installed as part of the Atlanta Streetcar Track System. The role-based training program will be developed with one goal, which is to ensure ASC's self-sufficiency in the continued operation of the Track system. The comprehensive program during the training exercises will ensure that ASC Maintenance personnel are fully qualified to inspect and maintain the Track system. A full set of training manuals will be developed to supplement the training program and be the reference material for ongoing support.

## **General Schedule**

The training program will be designed to provide training to ASC's maintenance staff so that they are fully competent in the inspection, maintenance and operation of track system prior to placing it into service.

## **Training Program Plan**

The training program revolves around the development of the roles that are defined by the ASC maintenance program. Final design of the system and the Business Process Review ultimately define the roles. As the roles are defined, the training plan and course outlines can be developed. The timely completion of this task will be critical to maintaining a schedule which will provide training to ASC. Track training shall provide classroom instruction for ASC maintenance personnel and other technical employees to inspect, maintain, adjust, repair and rehabilitate track system in a transit environment. A method of training summary shall be required.

## **Development of Operations, Maintenance Manuals**

Concurrent with the Business Process Review and the development of the Training Program Plan, the Contractor will develop the system-specific, functional-based training manuals that provide the reference material for track system components.

## **Training Material Development**

The role-based training manuals will be developed following the approval of the training plan and the reference manuals. This task includes the prototype and pilot courses. At the completion of this task, the training program will be ready to start the delivery phase.

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

## **Training Delivery**

Training will be delivered as required to meet in-service dates of the Track system. Due to the significant amount of training required, several training sessions might be required simultaneously on different subjects. The Contractor shall have expertise in the respective topics that they are training on. The core training program shall not exceed **fifty (50)** hours per year in duration.

## **Training Personnel**

The Contractor delivering the training program will be chosen for his/her familiarity with the specific types of track systems. Each training designer will be supported by subject matter experts (SME) that are part of the project design team. All personnel involved in the training program development and delivery will have:

- The ability to read, write, and understand the English language clearly and accurately;
- Relevant experience developing technical training material;
- A thorough knowledge of the subject equipment for a given course;
- Demonstrated understanding of the adult learning process; and
- Received formal instruction in technical training delivery.

## **Training Qualification**

Together, the Contractor and the City of ASC will collaboratively develop a detailed skill set description for each job requiring knowledge. These collaborative activities will extend to the development of a comprehensive training map, role-based training objectives, and course pre-requisites.

## **Performance Assessments**

The Contractor shall provide written material to support classroom instruction. Written material shall include testing instruments to measure student retention of information. Post-training assessments shall be used to measure participant learning at the conclusion of each training course delivery.

## **Attendees**

Training shall be provided to up to **ten (10)** ASC mechanics, maintenance supervisors, maintenance superintendents, engineering, consultants, and safety and training personnel. Selection of the attendees shall be determined by the ASC Maintenance Superintendent.

## **Trainer**

The Contractor shall deliver the required training

## **Curriculum and Duration**

- a. Classroom lecture
  - i. Specification of track and wayside equipment system
  - ii. Maintenance procedure of track and wayside equipment
  - iii. Material, maintenance manuals of track and wayside equipment

# Emergency On-Call Repair and Maintenance For Atlanta Streetcar Rail Track System

- b. Hands-on training
  - i. Material, maintenance manuals of track and wayside equipment
- c. On-the-job training (during testing and demonstration)
- d. Location
  - i. On-Site Atlanta Streetcar Track System
  - ii. Off-Site

Training to take place at the 275 Auburn Avenue, NE Atlanta, Georgia 30303 address and shall not exceed **two (2)** hours in length per session.

## **Training Courses To Be Taught**

The Contractor shall deliver training that includes at minimum the following topics:

- a. Track work Methodology
- b. Track work Engineering and Construction
- c. Transit Track Safety Standards
  - i. American Public Transit Association (APTA)
  - ii. Federal Railroad Administration (FRA)
- d. Track Design and Material Specifications
- e. Track Inspection and Evaluation
- f. Switch Maintenance, Adjustment and Inspection
- g. Rail Welding
- h. In-Track Welding
- i. Track Hand Tools and Special Equipment
- j. Stray Current
- k. Derailments
- l. Supervision & Project Management

# **Attachment No. 2**

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**EXHIBIT A.1**

**BID FORM**

**PRICE BID FORM  
EMERGENCY ON-CALL REPAIR AND MAINTENANCE FOR ATLANTA STREETCAR  
TRACK SYSTEM**

<b>ONE (1) YEAR BASE TERM</b>
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Line Item	Description	Unit	Estimated Quantity (see note 2)	X	Estimated Unit Price	=	Estimated Extended Price	
1	Mobilization and Equipment Staging	Month	12	X		=	\$	
2	Labor Rate per Hour for Track Emergency On-Call Repair	Hour	100	X		=	\$	
3	Labor Rate per Hour for Track Minor Repair	Hour	300	X		=	\$	
4	Labor Rate per Hour for Track Major Repair	Hour	200	X		=	\$	
5	Track Maintenance and Repair Qualification Training (Up To 10 ASC Maintenance Personnel)	Hour	50	X		=	\$	
6	Miscellaneous Parts, Materials and Supplies Allowance for Track	Allowance	Lump Sum	X	*****	=	<b>\$20,000.00</b>	
7	Surplus Inventory Parts Purchase ( <i>Supplemental Conditions, "PARTS"</i> )	Allowance	Lump Sum	X	*****	=	<b>\$50,000.00</b>	
<b>TOTAL PRICE, ONE (1) YEAR BASE TERM Sum of Line Item Nos. 1 through 7</b>							=	<b>\$</b>

**PRICE BID FORM  
EMERGENCY ON-CALL REPAIR AND MAINTENANCE FOR ATLANTA STREETCAR  
TRACK SYSTEM**

**OPTION 1, ONE (1) YEAR**

Line Item	Description	Unit	Estimated Quantity (see note 2)	Estimated Unit Price		Estimated Extended Price
8	Mobilization and Equipment Staging	Month	12	X	=	\$
9	Labor Rate per Hour for Track Emergency On-Call Repair	Hour	100	X	=	\$
10	Labor Rate per Hour for Track Minor Repair	Hour	300	X	=	\$
11	Labor Rate per Hour for Track Major Repair	Hour	200	X	=	\$
12	Track Maintenance and Repair Qualification Training (Up To 10 ASC Maintenance Personnel)	Hour	50	X	=	\$
13	Miscellaneous Parts, Materials and Supplies Allowance for Track	Allowance	Lump Sum	X	*****	\$20,000.00
<b>TOTAL PRICE, OPTION 1, ONE (1) YEAR</b> Sum of Line Item Nos. 8 through 13						\$

**PRICE BID FORM  
EMERGENCY ON-CALL REPAIR AND MAINTENANCE FOR ATLANTA STREETCAR  
TRACK SYSTEM**

<b>OPTION 2, ONE (1) YEAR</b>							
Line Item	Description	Unit	Estimated Quantity (see note 2)	Estimated Unit Price		Estimated Extended Price	
14	Mobilization and Equipment Staging	Month	12	X		=	\$
15	Labor Rate per Hour for Track Emergency On-Call Repair	Hour	100	X		=	\$
16	Labor Rate per Hour for Track Minor Repair	Hour	300	X		=	\$
17	Labor Rate per Hour for Track Major Repair	Hour	200	X		=	\$
18	Track Maintenance and Repair Qualification Training (Up To 10 ASC Maintenance Personnel)	Hour	50	X		=	\$
19	Miscellaneous Parts, Materials and Supplies Allowance for Track	Allowance	Lump Sum	X	*****	=	<b>\$20,000.00</b>
<b>TOTAL PRICE, OPTION 2, ONE (1) YEAR</b> Sum of Line Item Nos. 14 through 19							\$
<b>TOTAL PRICE, BASE TERM + OPTION 1 + OPTON 2</b> Sum of Line Item Nos. 1 through 19							\$

**Note:**

- 1. Bids must be on ALL Line Items.**
- 2. Estimated Quantities are not fixed and serves only for purposes of comparing Bids.**