

AGREEMENT BETWEEN
CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY
AND
AEGIS ITS
FOR
SMART CORRIDOR SYSTEM MAINTENANCE SERVICES

This Agreement entered this ____ day of _____, 2017, by and between the City/County Association of Governments of San Mateo County, a joint powers agency, hereinafter called "C/CAG" and Aegis ITS, hereinafter called "Contractor."

W I T N E S S E T H

WHEREAS, C/CAG is a joint powers agency formed for the purpose of preparation, adoption and monitoring of a variety of county-wide state-mandated plans; and

WHEREAS, the San Mateo County Smart Corridor Project (Project) is an Intelligent Transportation System (ITS) project which extends 20 miles along El Camino Real and major local streets connecting to US-101 and provides countywide traffic management system infrastructure enabling local agencies and the California Department of Transportation (Caltrans) to proactively manage daily traffic and non-recurring local traffic impacts due to major incidents on the freeway; and

WHEREAS, C/CAG is responsible for maintaining Project specific ITS infrastructure and communication network deployed within the cities' right-of-way and intends to outsource maintenance services to support various Project components; and

WHEREAS, C/CAG is prepared to award funding for maintenance of the Smart Corridor System infrastructure including closed circuit television (CCTV) cameras, trailblazer signs (TBS), and vehicle detection system (VDS); and

WHEREAS, C/CAG has determined that Contractor has the requisite qualifications to perform this work.

NOW, THEREFORE, IT IS HEREBY AGREED by the parties as follows:

1. Services to be provided by Contractor. In consideration of the payments hereinafter set forth, Contractor agrees to perform the services described in Exhibit A, attached hereto (the "Services"). All Services are to be performed and completed by June 30, 2020.
2. Payments. In consideration of Contractor providing the Services, C/CAG shall reimburse Contractor on a time and material basis based on the rate schedule set forth in Exhibit B up to a maximum amount of five hundred eighty four thousand dollars (\$584,000) for Services provided during the Contract Term as set forth below. Payments shall be made to Contractor monthly based on an invoice submitted by Contractor that identifies

expenditures and describes services performed in accordance with the agreement. C/CAG shall have the right to receive, upon request, documentation substantiating charges billed to C/CAG.

3. Relationship of the Parties. It is understood that Contractor is an Independent Contractor and this Agreement is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of Independent Contractor.
4. Non-Assignability. Contractor shall not assign this Agreement or any portion thereof to a third party.
5. Contract Term. This Agreement shall be in effect as of _____ and shall terminate on June 30, 2020; provided, however, C/CAG may terminate this Agreement at any time for any reason by providing 30 days' notice to Contractor. Termination shall be effective on the date specified in the notice. In the event of termination under this paragraph, Contractor shall be paid for all Services provided to the date of termination and all costs reasonably incurred as a result of the termination.
6. Agreement Renewal. This Agreement may be renewed twice, with each renewal term lasting for one year, upon the mutual agreements and approval by the C/CAG Board and Contractor.
7. Hold Harmless/ Indemnity: Contractor shall indemnify and save harmless C/CAG, its agents, officers, and employees from all claims, suits or actions to the extent caused by the willful misconduct or negligent errors, acts or omissions of the Contractor, its agents, subcontractors, officers or employees related to or resulting from performance, or non-performance, under this Agreement.

The duty to indemnify and save harmless as set forth herein shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

8. Insurance: Contractor or any subcontractors performing the services on behalf of Contractor shall not commence work under this Agreement until all Insurance required under this section has been obtained and such insurance has been approved by the C/CAG Staff. Contractor shall furnish the C/CAG Staff with Certificates of Insurance evidencing the required coverage and there shall be a specific contractual liability endorsement extending the Contractor's coverage to include the contractual liability assumed by the Contractor pursuant to this Agreement. These Certificates shall specify or be endorsed to provide that thirty (30) days notice must be given, in writing, to C/CAG of any pending change in the limits of liability or of non-renewal, cancellation, or modification of the policy. Such Insurance shall include at a minimum the following:

Workers' Compensation and Employer Liability Insurance: Contractor shall have in effect, during the entire life of this Agreement, Workers' Compensation and Employer Liability Insurance providing full statutory coverage.

Liability Insurance: Contractor shall take out and maintain during the life of this Agreement such Bodily Injury Liability and Property Damage Liability Insurance as shall protect C/CAG, its employees, officers and agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all operations under this Agreement, whether such operations be by the Contractor or by any sub-contractor or by anyone directly or indirectly employed by either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall be not less than \$1,000,000 unless another amount is specified below and shows approval by C/CAG Staff.

Required insurance shall include:

	Required Amount	Approval by C/CAG Staff if under \$ 1,000,000
a. Comprehensive General Liability	\$ 1,000,000	_____
b. Workers' Compensation	\$ Statutory	_____

C/CAG and its officers, agents, employees and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that the insurance afforded thereby to C/CAG, its officers, agents, employees and servants shall be primary insurance to the full limits of liability of the policy, and that if C/CAG, or its officers and employees have other insurance against a loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, the C/CAG Chairperson, at his/her option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work pursuant to this Agreement.

9. Non-discrimination. The Contractor and any subcontractors performing the services on behalf of the Contractor shall not discriminate or permit discrimination against any person or group of persons on the basis of race, color, religion, national origin or ancestry, age, sex, sexual orientation, marital status, pregnancy, childbirth or related conditions, medical condition, mental or physical disability or veteran's status, or in any manner prohibited by federal, state or local laws.
10. Compliance with All Laws. Contractor shall at all times comply with all applicable laws and regulations, including without limitation those regarding services to disabled persons, including any requirements of Section 504 of the Rehabilitation Act of 1973.
11. Substitutions: If particular people are identified in this Agreement are providing services under this Agreement, the Contractor will not assign others to work in their place without written permission from C/CAG. Any substitution shall be with a person of commensurate experience and knowledge.

12. Sole Property of C/CAG. Work products of Contractor which are delivered under this Agreement or which are developed, produced and paid for under this Agreement, shall be and become the property of C/CAG. Contractor shall not be liable for C/CAG's use, modification or re-use of products without Contractor's participation or for purpose other than those specifically intended pursuant to this Agreement.
13. Access to Records. C/CAG, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor which are directly pertinent to this Agreement for the purpose of making audit, examination, excerpts, and transcriptions.
14. The Contractor shall maintain all required records for three years after C/CAG makes final payments and all other pending matters are closed.
15. Force Majeure. Parties shall not be considered in default because of any delays in completion and responsibilities hereunder due to causes beyond the control and without fault or negligence on the part of the parties, including but not restricted to, natural disaster, war, civil unrest, volcano, earthquake, fire, flood, epidemic, quarantine restriction, area-wide strike, freight embargo, unusually severe weather or delay of subcontractor or supplies due to such cause. Parties shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon cessation of the cause, diligently pursue performance of its obligation under the Agreement.
16. Merger Clause. This Agreement, including Exhibits A and B attached hereto and incorporated herein by reference, constitutes the sole agreement of the parties hereto with regard to the matters covered in this Agreement, and correctly states the rights, duties and obligations of each party as of the document's date. Any prior agreement, promises, negotiations or representations between the parties not expressly stated in this document are not binding. Any subsequent modifications must be in writing and signed by the parties. In the event of a conflict between the terms, conditions or specifications set forth herein and those in Exhibit A attached hereto, the terms, conditions or specifications set forth herein shall prevail.
17. Governing Law. This Agreement shall be governed by the laws of the State of California, without regard to its choice of law rules, and any suit or action initiated by either party shall be brought in the County of San Mateo, California.
18. Notices. All notices hereby required under this agreement shall be in writing and delivered in person or sent by certified mail, postage prepaid and addressed as follows:

City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063
Attention: John Hoang

Notices required to be given to contractor shall be addressed as follows:

Aegis ITS
3360 East La Palma Avenue
Anaheim, CA 92806-2856
Attention: Bruce Dressel

IN WITNESS WHEREOF, the parties hereto have affixed their hands on the day and year first above written.

Aegis ITS (Contractor)

By _____

_____ Date

City/County Association of Governments (C/CAG)

By _____
Alicia Aguirre, C/CAG Chair

_____ Date

C/CAG Legal Counsel

By _____

EXHIBIT A

SCOPE OF WORK

Smart Corridor System Maintenance Services

PROJECT UNDERSTANDING OF SCOPE OF WORK/ APPROACH

1. UNDERSTANDING OF PROJECT OBJECTIVES

Smart Corridor Traffic Control Network

The development of County-wide Smart Corridors empowers and enables Caltrans, the County, and each of the local jurisdictions to manage traffic during non-reoccurring traffic congestion in those US-101 incidents that force freeway traffic on to the local arterials. The deployment of directional signs, CCTV cameras, Arterial Dynamic Message Signs, Vehicle Detector Stations, and C2C, (center-to-center) communications during these events, allows the State, Cities and County to proactively manage traffic by directing traffic through arterial streets, and bringing them back to the 101, past and beyond the incident area.

Communications infrastructure

The most critical element of the Smart Corridor System is the communications network. Aegis understands how important this infrastructure is to all of the entities. The concept of distributed traffic management hinges on the network being 100% operational at all times. Without the ability to control intersection timing, or to monitor traffic through the CCTV system, it would be impossible to manage traffic without communication to the directional signs, Arterial DMS, traffic signal controllers, or the vehicle detection stations. We also understand that part of this infrastructure was to be on leased lines, connected between the San Mateo Hub in the SM Police Station to D4TMC. Considering that the ConOps document was written in 2013, the permanent fiber connections have been made through the Millbrae BART Station. Regardless of the current configuration, Aegis understands that the communications network must be operational at all times, and will provide the necessary personnel to maintain the network.

Qualified Staff

The Contractor selected for this contract will be required to have qualified technicians, with demonstrated experience in all types of traffic signal controllers, Directional and Changeable Message Signs, CCTV cameras, both fixed and PTZ, and finally vehicle detection systems. In addition, the assigned personnel should also have the ability to troubleshoot and diagnose problems with all of the Partner's operation systems and also be available on an as-needed basis for callouts.

2. APPROACH TO IMPLEMENT MAJOR ELEMENTS OF THE SCOPE

Aegis understands that the work to be provided on this C/CAG contract involves routine preventive maintenance, emergency response, and repair of malfunctioning or damaged equipment, record keeping, and supervision for the maintenance of the Smart Corridor System components.

Aegis will be responsible for furnishing all tools, equipment, apparatus, facilities, labor, services and materials, and for performing all work necessary to maintain, in good workmanlike manner.

All of the Smart Corridor equipment owned or maintained by the C/CAG partners.

Aegis also understands that we will be responsible for providing maintenance services to all Smart corridor equipment, including CCTV cameras, directional and changeable message signs, and vehicle detection systems deployed throughout the Smart Corridors. We may also have additional devices added or removed during the term of agreement.

Aegis has reviewed the entire RFP and Scope of Services, and we not only have a good understanding of the project, but have the capability and staff to ensure C/CAG's project is a complete success.

3. ADDITIONAL TASKS THAT MAY ADD VALUE

Aegis is well-staffed with qualified fiber and communication technicians. It is understood that the communications network maybe maintained by the Iteris and C/CAG Information Systems people, but Aegis provides maintenance and repair services that cover not only the fiber network, but other communication needs as well. Our technicians and network engineers have experience with network backbone communications and "last-mile" communications to the field devices.

Once Aegis becomes familiar with the communications infrastructure, we will also provide USA marking services for fiber communications and other underground utilities that are part of the overall Smart Corridor System. We provide this service to other municipalities, and can be priced and considered in the future for implementation.

4. IDENTIFY HIGH-RISK ITEMS AND MITIGATION MEASURES

The obvious risk to the Smart Corridor System is damage to the communications infrastructure, CCTV locations, or directional and changeable message signs. As mentioned above, providing USA mark-out services would help protect the fiber communication lines, or any items below ground.

Above ground is a more difficult task. In the event of damage to above-ground devices, Aegis provides quick and trackable repair services for each and all of the devices. All response times and work performed are tracked through "*teamEpro*," our mobile system that can provide essential information to C/CAG about the "calls" and what was completed during the repair.

To mitigate the effect of an outage due to collisions, or other events, Aegis will propose a list of parts to be purchased and stored in our warehouse in San Jose. The accessibility to these spare parts will reduce the downtime for the system, and provide a permanent repair or replacement of the damaged equipment. The number and type of equipment to be purchased and stored can be determined after the first inspection and data collection period of the devices.

5. IDENTIFY KEY ASSUMPTIONS FOR CLARIFICATION

Our proposal is based on the following assumptions. We would be happy to discuss any and all items with C/CAG, and will make any adjustments C/CAG may deem necessary

- CONTRACTOR will acquire one Caltrans rider encroachment permit.
- CONTRACTOR will also acquire encroachment permits from the local municipalities where required.
- CONTRACTOR will be allowed to charge for emergency traffic control services, on a task order basis.
- CONTRACTOR will not be held responsible for delays outside our control.

- CONTRACTOR will not be held responsible for delays or malfunctions due to others working inside the contract limits.
- All callouts are paid at the listed time and materials rates, portal to portal.
- Where required by California state law, double time rates will be reimbursed by C/CAG.
- C/CAG will provide a list and locations of all assets.
- C/CAG and CONTRACTOR will determine items supplied or purchased as spare parts. If items are to be purchased by CONTRACTOR, C/CAG will reimburse CONTRACTOR for the purchase of the equipment, to include the pre-determined markup.

6. SCOPE OF WORK DOCUMENT

CONTRACTOR has reviewed the preliminary Scope of Work (SOW) and Deliverables in detail, and we have compiled a top level Work Breakdown Structure (WBS), shown in the figure on the following page. The WBS also highlights major project deliverables.

Below we have focused on the requested topics of project management tasks, typical activities, and the methods that would be used to coordinate the various units working on this project.

Project Management Tasks

CONTRACTOR' approach to providing management, infrastructure maintenance, inspection, trouble- shooting, and repair services, is built on a foundation of project planning, progress monitoring, and control activities including:

- Schedule and lead internal and external project planning meetings via conference call or face-to-face
- Develop a Project Management Plan that includes project management, contract administration, staffing, inventory control, quality control, maintenance, and risk management plans.

Monitoring Activities

- Evaluate progress of work against the baseline project schedule and estimate
- Measure progress on major project deliverables against plan
- Ensure all assets are functional and maintained on a timely basis to ensure proper operations of the C/CAG countywide traffic management system infrastructure

Control Activities

- Accelerate work schedules, if needed
- Revise scope revision, if requested or required
- Add task order/optional work, as requested and approved
- Replace underperforming resources, if required
- Coordinate with C/CAG's PM on any revisions to the project's plan

CONTRACTOR believes that strong communications goes a long way to ensuring the success of any project. Throughout the project, CONTRACTOR' Project Manager will keep C/CAG's Project Manager apprised of the progress of the work and any issues as they arise. To ensure all project stakeholders are well informed and to eliminate surprises, CONTRACTOR will organize, conduct, and document monthly project meetings. These meetings are intended to provide an overview of the work performed during the prior period, work to be performed in the next period, and address any relevant issues.

Our project management philosophy is a flexible framework for action, rather than a rigid process. It is an effective and efficient application of CONTRACTOR' best practices that initiates and guides our methodology to successfully deliver projects and services. Our process enables our project team to start programs quickly and deliver them successfully, with an emphasis on identifying and mitigating project risks throughout the contract.

A key component of our approach, and a major deliverable of the project, is the development of the Project Management Plan. This plan will be built from the information contained in the RFP, our proposal, and subsequent discussions with C/CAG. The Project Management Plan will outline the necessary steps and processes to implement and manage the project. Per the RFP, our Project Management Plan will address the following components:

- **Project Management.** This plan will include final Scope of Work, approved Work Breakdown Structure (WBS) and CPM schedule, final contract pricing, and project management responsibilities for CONTRACTOR and C/CAG project managers, etc.
- **Contract Administration.** This Project Management Plan will document requirements for approvals, scope modifications including task orders and optional work, project documentation, invoicing, acceptance of work, etc.
- **Staffing Plan.** Starting with our proposed Staffing Plan in Section 7 of this proposal, this plan will update and document our staffing plan, including individuals assigned to the project, their roles and responsibilities, availability, and project reporting structure.
- **Quality Control Plan.** This plan will document project quality control processes including inspection, problem reports, corrective actions, acceptance, and documentation. Our proposed Maintenance Management System will be an integral part of our quality control plan.
- **Risk Management Plan.** This plan identifies a key part of project management - the identification and mitigation of risks throughout the project. While risks imply things outside of our direct control, our experience is that by anticipating potential issues, and documenting them, along with a mitigation plan (to help avoid their occurrence) and a correction plan (to correct the problem), the impact of risks can be greatly reduced or even eliminated.

Maintenance Activities

The following maintenance activities will be performed on a monthly basis. Routine Preventive Maintenance schedules will be established based on the guidelines of the RFP and will be performed based on the requirements of C/CAG and your stakeholders. CONTRACTOR believes we can improve the efficiency and benefit of C/CAG's program with several proposed updates to the PM schedule. Part of the preventive maintenance process requires maintenance technicians to routinely check and document the Smart Corridor countywide traffic management system infrastructure. Inventory, such as pull box lids, conduit, directional and changeable message signs, CCTV cameras, cabinets and contents, and detection devices, etc., will be updated and input into *teamEpro* and the C/CAG database during the preventive maintenance process. This process provides real-time inventory status and valuable insights into material replacement needs.

In response to a service call, the responding technicians will log into *teamEpro* to capture the details in our maintenance management system. Upon arrival on-site, maintenance technicians will troubleshoot and identify the faulted condition or asset and repair or replace it. If parts are not

available at the time of repair, the CONTRACTOR shall order the replacement parts, with the approval of C/CAG, and resolve the issue found when the part arrives.

Alternatively, during the normal PM periods, our technicians will log in to begin the annual or semi-annual maintenance with a pre-determined check list, which is included in *teamEpro*, and a requirement of the technician to complete.

Once a problem has been reported, and the problem has been resolved, the technician will ensure the work site is safe and secured from the original problem that initially caused an issue. Once resolved, the ticket will be closed in the databases and the case will be documented.

The only time a technician will leave a site without that site being completed, is when additional parts are required to finish the repair, or if the project requires approval that cannot be granted on-site, such as wire theft. In either case, the technician will contact the Project Manager/Lead prior to leaving, in order to provide a situation update and note the follow up action in *teamEpro*.

Technicians will have ready access to the necessary tools, equipment, and a sufficient number of spare parts available at the warehouse or on their truck. Each technician will also have the necessary engineering support and supervision. In addition, proper procedures will be put in place to ensure the efficient movement and use of field personnel, equipment, and spares.

As part of standard maintenance activities and quality assurance processes, CONTRACTOR documents and maintains accurate records of all hardware and maintenance events, as well as scheduled, preventive, corrective, and emergency maintenance performance. Our real time maintenance records are designed to keep CONTRACTOR and C/CAG personnel apprised of the status of any open field service issues.

In addition, we will provide a monthly maintenance report listing all issues detailing the time we received the call; our technician response time; time to complete; and a comparison of response and repair times to the appropriate service level. CONTRACTOR will ensure that all reports are available to C/CAG's Project Manager.

Spare Parts Inventory

Spares Parts Inventory Control is discussed below under Section 2.7.5, **Storage Facility**. CONTRACTOR will stock and maintain a sufficient supply of parts and materials, including required materials with long lead times, tools, or other equipment that are necessary to make immediate or emergency repairs.

Traffic Control and Lane Closures

All traffic control or lane closures will conform to California MUTCD 20-14 (or later) and Caltrans Standard Specifications and Maintenance Work Zones. In addition, lane closures will be pre-determined as part of the scope of work, and be detailed in the Management Plan. This allows each of the municipalities to direct CONTRACTOR with work zone and lane closure hours of operation. Once determined with each municipality, standard lane closures will only occur within the hours specified in the management plan.

System Assessment

During the initial maintenance visit, CONTRACTOR will conduct an infrastructure assessment to identify and describe the current condition of the Smart Corridor countywide traffic management system infrastructure. In the course of the assessment, CONTRACTOR will also enter in all of the

assets into the *teamEpro* maintenance management system. This will not only be used for the replacement report, but will be maintained as a real time asset management tool, which will also support our inventory control processes.

Any devices and/or infrastructure in the project area that may need upgrade, replacement, or repair will be identified and included in the upgrade and replacement report. CONTRACTOR will submit a sample report format for approval by the C/CAG Project Manager or designee.

7. WORK PLAN

Managing Resources and Maintaining Quality

Producing quality results is always a shared goal between CONTRACTOR and our clients. One of our Econolite Group's core values is continuous improvement, for which we have significantly invested in our quality systems and processes. From Operational Excellence to our ISO 9001 manufacturing certifications, we are committed to always maintaining the highest standards of quality. Part of delivering quality, in a project context, includes management of project resources to ensure availability of qualified resources to be allocated at the time they are needed to maintain schedules. To that end, CONTRACTOR will:

- Assign the most qualified management staff to lead the project
- Provide trained and qualified technical staff for their respective work assignment
- Provide experienced administration and support staff
- Utilize technology tools like *teamEpro*, our maintenance management system, to ensure accurate records and performance measures
- Develop and follow a disciplined project management plan
- Monitor project performance on a daily basis

Along with CONTRACTOR' project resource staff to be assigned to this contract, we have included a highly skilled and established local firm to complement CONTRACTOR' technical capabilities and provide C/CAG with a highly talented team, and a track record of success on similar projects.

Our subcontractor, Statewide Traffic Safety & Signs, will provide all Traffic Control Services, when required. We have worked with Statewide on several projects. Additional details on our subcontractors' experience and where we have worked together can be found in Section 7. Statewide Traffic Safety & Signs has been selected based on their commitment to perform quality work; their commitment to ensure quality staff availability for the duration of the contract; and their reputation among their peers for providing quality services to their clients.

We have other strong working relationships with subcontractors, including Colebank Construction. Colebank Construction provides underground directional drilling, foundation drilling, conduit repair, and new underground construction, if needed.

In addition, CONTRACTOR has a long-standing relationship with numerous contractors we can provide, should the need arise on any task orders, to complete any construction services that may be required.

Best Practices for Communicating Key Issues and Handling Problem Areas

Best practices in communications will help keep the C/CAG Project Manager, or his/her designee, up-to-date on relevant issues and informed of recommendations. Those best practices include multiple layers of communications, each with most ideal applications. Some of these options include

- **Face-to-Face.** We strongly believe in the value of face-to-face communications with our clients and are intentional about spending time with them regularly to ensure that we are in sync and working well together. Face-to-face communications is excellent for building relationships and resolving issues. CONTRACTOR' face-to-face meetings are documented through follow-up minutes or emails, if the content needs to be preserved in the project record.
- **Telephone/Text Messaging.** Telephone communications are best suited for more complex issues that may be difficult to articulate in text-based communications. Nuances and intentions are more easily captured in a real time conversation than in a text or an email. Like face-to-face conversations, telephone conversations will be documented, if the content should be preserved in the project record. CONTRACTOR also provides texting capabilities for a quick response to messages, if the client is unavailable to talk on the phone.
- **Email.** Emails, combined with the ubiquity of mobile devices, have been a boon to communications. Messages are delivered with little delay and emails are self-documenting, preserving a historical log of communications. For quick responses where documentation is needed for formal project decisions, email is an excellent choice
- **Documents.** Most documents today are transmitted electronically and should be used for formal deliverables, reports, meeting minutes, correspondence, notices, etc. Electronic document formats make transmission and distribution of documents easier and faster than ever. Good document storage practices preserve the project's records by storing these documents in a secure file storage environment. Shared project stored, using tools such as Dropbox, can simplify transfer or distribution of large files.

Of course, regardless of the medium, the most important practice in communications is a strong commitment to good communications. Communications is literally a two-way street and we, at Aegis, are committed to communicating frequently, candidly, and constructively with C/CAG and the Smart Corridor partners throughout the life of this project.

Coordination and Communication

This project represents a partnership between C/CAG and the selected contractor. Clearly, detail is imperative for this project. Based on our maintenance work with BATA, MTC, ACTC, Caltrans, and others, especially in the maintenance of roadway and highway services, and CONTRACTOR' work with many of the stakeholders on a daily basis, we understand the importance of daily communication and coordination with these clients.

In addition to working with the individual staff and departments, we are familiar with the tools and processes that are currently used such as Task Orders, Caltrans Lane closure system, and COZEEP/MAXEEP. We understand the current processes and we have insights into opportunities to streamline the processes, consistent with the project objectives.

CONTRACTOR will work with C/CAG to establish a protocol for coordination with the different units, which will include clear lines of communications and responsibilities. Having completed

numerous Task Order Contracts for clients throughout the United States, we are intimately familiar with what and why coordination and communication with the various stakeholders is extremely important – not only to them, but to their constituents of the various cities, counties, and agencies involved. We know what it takes to make this type of contract a success for all parties, so we are providing C/CAG with a quality team of experts, who know how to get projects done quickly, within C/CAG’s budget, and to C/CAG’s complete satisfaction.

Database and Tool Management

Aegis understands the importance of organization and database management and proposes to use our *teamEpro* for this Database. Within this Section, we will discuss *teamEpro* and its capabilities. With a successful implantation of this contract between C/CAG and CONTRACTOR, this management tool will be provided at *no charge* to C/CAG.

Aegis Maintenance Management System

A key to Aegis’ success in ITS maintenance has been the development of a maintenance management tool written by Aegis and known as *teamEpro*. Our maintenance management software is unique in the industry and provides comprehensive management, tracking, and reporting of maintenance activities. Aegis’ *teamEpro* includes several modules, each addressing critical maintenance functions, as highlighted below.

- **Asset Management Module.** CONTRACTOR will establish a database of spare equipment for major assets (examples of major assets include items such as CCTV Cameras and LED modules); these assets will have unique identifiers as we build the initial database. As an additional benefit, CONTRACTOR will continue to identify all spare equipment on vehicles and in warehouses, making swapped equipment easy to track and identify. Once the database is in place, C/CAG will be able to view the asset information in real-time.
- **Preventive Maintenance.** Aegis’ *teamEpro* offers a number of tools to support a strong preventive maintenance program, including reporting, and a customizable preventive maintenance checklist. Utilizing the custom electronic PM checklist, all items listed will be completed and checked following the requirements of C/CAG. At this time, if any significant or hazardous issues are found, immediate work scheduling will occur to correct the situation as soon as possible.
- **Task Order Management.** In order to maintain a comprehensive maintenance record for this contract, we are utilizing *teamEpro*. One of the advantages of *teamEpro* is the ability for the technician to create tickets in real time, allowing repairs of problems noted while the technician is on-site. A repair ticket will be generated and sent to C/CAG for approval prior to repairs being made.
- **Monthly Activities Report.** CONTRACTOR will provide a computerized monthly activity report on maintenance activities. This report will include the following information:
 - Time the service calls were received, time arrived at the device, the response time, and the number of hours spent for each repair
 - A complete record of all work that was performed, including assets, locations, and material used at each location, time and date the inspection work was performed

While *teamEpro* collects the data from the field, our report services portal will allow authorized C/CAG managers to access the information. With this tool, C/CAG can export into common programs, such as Excel, and sort, review, and print any needed information.

Storage Facility

Over the past 15 years, Aegis has set up, originated, managed, and maintained numerous warehouses for installation and maintenance projects. We currently manage three warehouses in California and two repair and testing labs.

All spare equipment, including C/CAG-furnished spares, will be stored in a CONTRACTOR maintenance support facility and CONTRACTOR will maintain an inventory of spares during the maintenance contract. Documentation of inventory transactions will include the time, date, and location of equipment. The availability of spares is key to effective maintenance and CONTRACTOR will work with C/CAG to ensure the right parts, in sufficient quantities, are available. Items may include conduit, pull box and lids, vault and lids, cameras, ACMS controllers and panels, and signs.

CONTRACTOR will maintain the inventory database in our maintenance management system, *teamEpro*. All inventory related forms are designed for ease of data entry into the system. One of our preventive maintenance procedures involves verifying the serial numbers of assets. This procedure serves to keep the inventories fully up-to-date. Inventories are counted periodically and will be reported to C/CAG at least annually, or the frequency that fits C/CAG's needs.

Our maintenance management system treats all of our maintenance vehicles as mobile warehouses, and the inventory on the vehicle is cycle counted in the same manner as our fixed warehouses. An inventory management screen is shown in the adjacent figure.

Our *teamEpro* system was developed with a focus on ease of use and the reduction of human error. To that end, the steps to moving inventory is as simple as logging into the warehouse and vehicle, selecting the inventory items to be moved from the list, entering the quantities, and selecting an arrow to move the inventory to the vehicle. The same process is utilized to move inventory from a vehicle to a location in the field. This process is simple, reduces human error, and all data is captured and available in real time, allowing our inventory to remain accurate to the minute.

Emergency Response to Repair Critical Items

Through Aegis' numerous maintenance and repair projects, we have had extensive experience in the performance of emergency response maintenance of ITS highways and devices. Our Northern California maintenance practice currently provides a 24-hour, 7 days a week (24/7) emergency response to our clients for critical repairs. In fact, we are currently providing emergency response to BATA under our Toll Facilities Maintenance Services project and the 880 MTC TOS Project. Providing emergency response for the San Mateo County Smart Corridor System Maintenance Service project will require no special accommodation.

CONTRACTOR maintains a 24/7 dispatch service that logs in calls to our maintenance management system, which then dispatches the on-call technician for the area. CONTRACTOR recognizes that emergency repairs are mission critical and, depending on the level of urgency, can be completed around the clock.

Asset Inventory and Equipment Management

Aegis proposes to use our field proven maintenance management system software, *teamEpro*. It is capable of inventorying all of C/CAG's assets and equipment. The software can provide real time inventory counts of field and warehouse assets. The software includes modules for:

- **Asset/System Management** – Fully functional asset inventory management allows tracking of discrete, high value items by unique identifiers. The module also allows tracking of commodity items by inventory levels so counts are incremented and decremented with restock and usage.
- **Preventive Maintenance** – This full-featured preventive maintenance module allows variable schedules and checklists, by device, along with a complete historical log of activity at each location.
- **Reporting** – The system provides numerous reporting options including calls by location, PM status, device location, and many, many more.

Potential Problem Areas and Challenges

Even with the best planning, no project is without problem areas and challenges, and this project will be no different. However, Aegis does offer unique insight into some of the challenges of maintaining and servicing the highways and interchanges, having completed similar contracts. Some of the challenges we have experienced, and suggestions to overcome those challenges, include:

- **Equipment Delays** – Aegis has successfully operated on a 24/7 basis since our first contract in 2002. One of the keys to our success is having readily available spares. CONTRACTOR proposes to work with C/CAG to maintain a sufficient inventory of these items at our warehouse so we can be responsive to issues when they arise. This process will increase uptime and eliminate unnecessary trips to a location. Our technicians will be able to promptly troubleshoot and repair the failures, increasing the uptime of the assets.
- **Maintaining Schedule and Budget Overruns** – CONTRACTOR has an approach with our projects to ensure the contracts are maintained, project schedules are kept, and costs are monitored to keep in line with the budget. Below are steps we take to meet this challenge head on.

Step 1 – Determination of Potential Project Issues. CONTRACTOR will make a determination of specific potential project issues and/or current project issues that could jeopardize the project's success. We will look at what project features can be salvaged or need to be changed.

Step 2 – Develop Corrective Action Recommendations. The project team will develop corrective action recommendations to get the project back on the right track and to ensure all of the project's goals and intent will be accomplished to C/CAG's satisfaction.

Step 3 – Corrective Action. CONTRACTOR will immediately implement corrective action to the particular effected item, and ensure that it can be corrected, within the original schedule submitted. If there are coordination issues with stakeholders, other than C/CAG, that dictate a schedule revision, the impacts will be discussed with C/CAG as soon as they are known. CONTRACTOR will correct the issue within the original schedule and get the project back on track.

These steps ensure that we have contact with C/CAG, by phone or email, to stay on top of issues and be proactive in our responses. In addition to these items listed, we know that there will be more challenges and, that in partnership with C/CAG, we can develop solutions to overcome them. CONTRACTOR has a proven track record of working with our clients to solve problems and we will bring that collaborative and creative approach to this project.

SCHEDULE

8. PROJECT SCHEDULE INCLUDING TASKS OUTLINING SCOPE OF WORK

CONTRACTOR recognizes how critical a detailed and accurate project schedule is to having a successful project; we also realize that proper sequencing of tasks with realistic durations and dependencies is critical. CONTRACTOR has the ITS project experience to properly plan the project and take advantage of opportunities where tasks can be accomplished concurrently in order to speed the project along with a focus on the critical path.

The following basic project timeline illustrates our approach to providing project deliverables.

	2017												2018												2019											
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
First Annual Preventive Maintenance and Data Collection																																				
Annual Preventive Maintenance																																				
Invoice Reports																																				
Project Management Plan																																				
Spare Parts Inventory and Review																																				

CONTRACTOR is currently registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5. Our Registration Number is 1000010720, and has an expiration date of June 30, 2017.

San Jose	Hayward	Anaheim
1810 Oakland Rd Suite E	24209 Clawiter	3360 East La Palma Avenue
San Jose, CA 95131	Hayward, CA	Anaheim, CA 92782
(408) 577-1733	(408) 577-1733	(714) 360-3700

In addition, CONTRACTOR currently holds a State of California Contractor’s State License Board Class A General Engineering license, a C-10, Electrical license, and a C-7 license. The License Number is CA 969067, and is valid until January 31, 2018. CONTRACTOR has continuously held a valid contractor’s license, in good standing, since its inception in 2002.

Equipment and Resources

All listed field technicians drive fully equipped 42’ bucket trucks. CONTRACTOR uses the following vehicle types to support traffic signal maintenance and installation:

- Ford F-550 with a 42' reach bucket
- Dodge 5500 with a 42' reach bucket
- Ford F-450 4x4 Pickup
- Ford Transit Connect (Van)
- International with a 60' reach bucket

Below is a partial listing of types of equipment, components, and materials carried in the trucks to provide timely responses to maintain and restore operation of C/CAG's Smart Corridor system:

- Signal Controllers
- 24 VDC Power Supply
- MMU's/CMU's
- 204 Flashers
- Box Fans
- Air Filters
- Load Switches
- Push Button with Housing
- Various HPS Lamps for Street Lighting
- Photocells
- Various LED Balls and Arrows (Green, Yellow, Red)
- Fuses (5A, 10A, 15A, 30A)
- Various Spare Wires (8AWG-14G)
- Flash Transfer Relays
- Detectors
- BIU's
- ADA Push Button Assemblies
- 10' Pole
- Section Traffic Signal
- Mounting Framework
- Pedestrian Signal
- CMS replacement panels

Strong Team Approach

We have proposed our team for maximum compliance with the RFP requirements and are confident in our ability to meet, and exceed, C/CAG's expectations for this project. Many of our proposed team have already worked with the Bay Area Toll Authority within C/CAG and have established a great partnership with the BATA and Caltrans project staff. That project has been a great model for C/CAG's objectives on this project – a cooperative working relationship that allows creativity in identifying and implementing efficient, cost-effective solutions to optimize the operations of the systems we maintain. We believe this project can take that approach to the next level, with the added element of performance-based compensation.

Mr. Bruce Dressel, our proposed Project Manager, is a 35-year veteran of the Traffic Operations and Maintenance industry and has demonstrated project and organizational leadership throughout his career. As a former Traffic Management Center, Manager for 15 years,

Mr. Dressel has intimate knowledge of Smart Corridor Systems, including the benefits and challenges that come with multi-jurisdictional/joint signal maintenance and operations projects. Mr. Dressel has worked with Caltrans in the course of prior and current CONTRACTOR projects and is experienced in what it takes to get the job done. Based in our San Jose office, Mr. Dressel is extremely knowledgeable regarding Traffic Operation systems, as well as Caltrans operations.

CONTRACTOR will provide a start-up team at the project inception, working closely with C/CAG and applying best practices learned from over a decade of ITS maintenance to establish project systems and processes. Although currently staffed with needed personnel for this project, per the specifications in the RFP, we can and will augment the project with additional qualified personnel, as needed.

9. KEY PERSONNEL

As part of Econolite, Aegis has access to over 650 employees across the United States, Canada, and Mexico. Aegis ITS, Inc. has a base staff of over 70. For this project, Aegis will be utilizing the staff noted in the Organization Chart below, with the ability to pull from additional professionals at Aegis.

As shown in the Organization Chart, we have developed a project organization that meets the staffing requirements of the project, is cost-effective, and efficient to the needs of the City/County Association of Governments of San Mateo County. Our Project Manager will manage our overall contract and have a key role in initially establishing roles and responsibilities with C/CAG and other stakeholders on the project.

Workload/Staffing Capability

The Aegis Team has the optimal workload required to ensure total commitment to C/CAG for the Smart Corridor System Maintenance Services contract. Aegis' staff availability far exceeds current and projected work commitments. With the number of employees and technical staff that the Aegis Team possesses, we can provide technical expertise in all required disciplines. *The Aegis Team is committed to this project for its duration. No key personnel will be taken off the project without prior written consent from C/CAG.*

Key Personnel Availability

The Aegis Team is prepared to dedicate all of the resources necessary to meet the needs of this contract. All key personnel designated for this assignment, will be available immediately upon contract award to complete the project in a timely, technically competent, and cost-efficient manner.

Aegis' top corporate management are committed to ensuring staff availability throughout this project.

Ability to Meet Schedules

Aegis takes pride in our ability to complete projects within our clients' budget and schedule. At the beginning of each contract, Aegis has a meeting with our client to ensure all project criteria are thoroughly understood by all parties. These meetings have helped to achieve complete satisfaction for our clients.

10. PROJECT ORGANIZATION

All of Aegis's proposed organizational staff are International Municipal Signal Association

(IMSA) Level II and Level III technicians and National Electrical Code (NEC) certified electricians, with many years of experience in the traffic maintenance industry. As required, many of our technicians meet or exceed the qualifications listed in the RFP, and include the following:

- IMSA Level II or higher traffic signal technician with a minimum of three years' experience in traffic signal repairs.
- Technicians shall be familiar with all traffic signal control systems currently in operation in the C/CAG area.
- Familiar with programming traffic signal timing and interconnecting timing of controllers.

The Aegis Team has a knowledge base that is second to none. As a member of the Econolite family, our resources and equipment knowledge to resolve issues in the field are immense.

Resumes for Key Staff/Team Members

Listed below are Aegis' key staff members we have selected to provide services to C/CAG for your Smart Corridor System Maintenance Service needs.

- **Bruce Dressel, Principal-in-Charge/Project Manager.** With over 35 years of experience in the traffic signal maintenance industry, Aegis's Project Manager for this pursuit, Bruce Dressel, will be the primary point-of-contact with C/CAG. Mr. Dressel will ensure continual staffing resources and will also ensure that Aegis meets C/CAG's Maintenance Services objectives.
- **John (JD) Dendy, Lead Technician.** As the proposed Lead Traffic Signal Technician, Mr. Dendy has over 10 years of experience, and is an IMSA Traffic Signal Level III Field Technician, an IMSA Traffic Signal Inspector Level I, a Cisco-Certified Network Associate; an IMSA Work Zone Safety Temporary Traffic Control Specialist; an Axis-Certified Technician; and an NEC certified electrician. Some of Mr. Dendy's technical experience and expertise include: central server-side traffic management and ATMS systems; traffic/transportation/ITS network planning, design, installation, and maintenance; signal and coordination timing and implementation; video surveillance and monitoring systems; NEMA TS-1/TS-2 and Caltrans TEES signal cabinet and controller build, configuration, and inspection; and general traffic signal maintenance and field equipment installation. John holds an AAS Degree in Network Systems Administration. John is based in San Jose, California.
- **Richard Hodges, Electrician.** Mr. Hodges has more than six years of experience in street lighting and traffic signal maintenance and construction for on-call emergency repairs; six years of bucket truck experience, specializing in SL pole installs; and more than 13 years of experience in the ready-mix industry. He is an IMSA Level III Certified Senior Technician, and is Class A, Crane certified. Richard is based in San Jose, California.

Technicians (as needed)

- **Le Nguyen.** As the Lead Utility Technician, Mr. Nguyen has 12 years of experience, and is an IMSA Traffic Signal Technician Level II, and an IMSA Fiber Splice Specialist.
- **Roderick Ward.** Mr. Ward has been an electrical apprentice since 2009, and is an IMSA Level II Signal Technician, and Work Zone and OSHA 10 certified. He has worked on several signal systems in Sunnyvale, and provided maintenance troubleshooting and repair in San Ramon and other cities.

- **Joshua Castaneda.** Mr. Castaneda has seven years of experience in the traffic signal maintenance industry. He is an IMSA Traffic Signal Technician Level I and is Work Zone Safety certified.

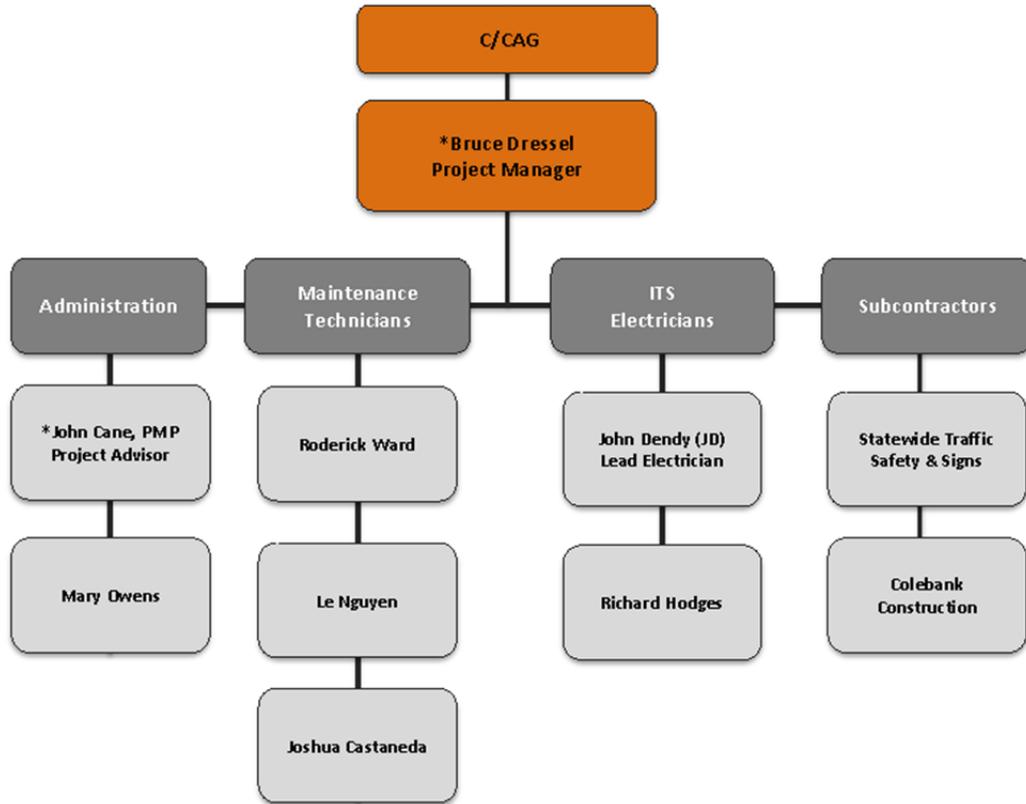
SUBCONTRACTORS

Supporting Aegis is a team of subcontractors that will bring their specialized skills and experience to C/CAG's Maintenance, Diagnostic, and Repair Services of TOS Devices contract. We have selected these two highly qualified firms to complement our own skills, and provide C/CAG with a team that has a reputation for high quality work. With experience across all elements of the project, our team will bring the expertise to perform all requested tasks and project requirements necessary for a successful project. Our subcontractors are experts in their own respective fields, and we expect their experience to translate into the finished product.

- **Colebank Construction, Subcontractor (Underground construction) - C-12 License # 675095.** Colebank Construction has been the underground utility subcontractor for Aegis for the past eight years. Aegis has worked with Colebank on numerous projects throughout the Bay Area for customers such as Caltrans, C/CAG, BATA, and local municipalities. Colebank Construction will provide directional boring, pot holing, and minor asphalt/concrete work for the project.

- **Cal-Vet Services C-31 License # 894938.** Cal-Vet is a new subcontractor for Aegis. They have a great reputation and have worked for numerous large engineering contractors on state highway projects. Cal-Vet is a certified Small Business Enterprise (SBE) and certified Disadvantaged Veteran Business Enterprise (DVBE) (Certification # 1111002).

Below is the Organization Chart and resumes for our key and support staff qualifications and certifications.



(*) Key Staff

DELIVERABLES

11. IDENTIFY DOCUMENTS TO BE PROVIDED UNDER THIS PROJECT.

MANAGEMENT PLAN

- Project Management.** This plan will include final Scope of Work, approved Work Breakdown Structure (WBS) and schedule, final contract pricing, and project management responsibilities for Aegis and C/CAG project managers, etc. The initial plan will discuss and detail all of the key items listed in Section 1.2 of the RFP. With the permission of C/CAG, this plan will be modified on a monthly basis to highlight only those specific items that change monthly. With the use of *teamEpro*, Aegis feels that the daily requirements of the contract will be captured and archived in *teamEpro*, and available to C/CAG to review at any time.
- Contract Administration.** This Project Management Plan will document requirements for approvals, scope modifications including task orders and optional work, project documentation, invoicing, acceptance of work, etc.
- Staffing Plan.** Starting with our proposed Staffing Plan in Section 10 of this proposal, this plan will update and document our staffing plan, including individuals assigned to the

project, their roles and responsibilities, availability, and project reporting structure. In addition, all of our employees are security screened through *iProveit* prior to employment with Aegis.

- **Quality Control Plan.** This plan will document project quality control processes including inspection, problem reports, corrective actions, acceptance, and documentation. Our proposed Maintenance Management System will be an integral part of our quality control plan.
- **Risk Management Plan.** This plan identifies a key part of project management - the identification and mitigation of risks throughout the project. While risks imply things outside of our direct control, our experience is that by anticipating potential issues, and documenting them, along with a mitigation plan (to help avoid their occurrence) and a correction plan (to correct the problem), the impact of risks can be greatly reduced or even eliminated.

IDENTIFY PRODUCTS TO BE USED IN PERFORMING TASKS

The Smart Corridor project has installed several specific devices used in data collect, monitoring and/or control of traffic. It is Aegis' plan to provide and stock the exact equipment used in the field devices, should replacements be required. In the event that these devices begin to fail or have problems in the network, Aegis will work closely with the C/CAG Project Management to find resolutions to the problems, and provide solutions and new equipment that has been fully tested and determined a permanent solution to the original issue. At no time will Aegis replace substitute equipment unless pre-approved by C/CAG Management.

MAINTENANCE ACTIVITIES

Start-up inspection to include:

The CONTRACTOR shall conduct a startup inspection of the equipment to ascertain that all equipment is functional and collect serial and part numbers of the devices to build a database. Any unit that is malfunctioning or non-operational shall be replaced with C/CAG approved equipment by the CONTRACTOR and Troubleshoot the reason for the unit non-operation. The first annual inspection services shall be completed within six months of the start of the contract date. In addition, the CONTRACTOR shall clean, calibrate and trouble-shoot the Smart Corridor System field equipment as described below:

Closed Circuit Television Cameras (CCTV) Equipment – Contractor will perform, inspect and/or evaluate items including, but not limited to: clean all lenses, vacuum cabinet, camera lowering device, camera pole, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.

Vehicle Detector Station (VDS) Equipment - Contractor will perform, inspect and/or evaluate items including, but not limited to: re-calibrate all VDS units to be within the accuracy tolerance per the manufacturer's recommendation for volume and speed, battery unit, detector unit, detector pole, mounting brackets, associated junction box/cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, conflict monitors, battery backup system locations, battery rotation and other ancillary equipment.

Trailblazer Signs (TBS) – Contractor will perform, inspect and/or evaluate items including, but not limited to: controller, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.

The Annual inspection to be accomplished one year after the Start-up Inspection shall include:

A verification inspection of all devices to insure the serial and part numbers are the same devices found during the Start-up inspection, or the replaced devices have been properly replaced in the database, with a record of why the original device was removed.

Closed Circuit Television Cameras (CCTV) Equipment – Contractor will perform, inspect and/or evaluate items including, but not limited to: clean all lenses, vacuum cabinet, camera lowering device, camera pole, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.

Vehicle Detector Station (VDS) Equipment - Contractor will perform, inspect and/or evaluate items including, but not limited to: re-calibrate all VDS units to be within the accuracy tolerance per the manufacturer's recommendation for volume and speed, battery unit, detector unit, detector pole, mounting brackets, associated junction box/cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, conflict monitors, battery backup system locations, battery rotation and other ancillary equipment.

Trailblazer Signs (TBS) – Contractor will perform, inspect and/or evaluate items including, but not limited to: controller, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.

EXHIBIT B
RATE SCHEDULE

Annual Inspections				
Equipment	Year 1	Year 2	Year 3	Total
CCTV Cameras	\$67,687.00	\$58,760.00	\$58,760.00	
TBS	\$23,779.70	\$20,286.00	\$20,286.00	
VDS	\$13,980.00	\$9,960.00	\$9,960.00	
Subtotal	\$105,446.70	\$89,006.00	\$89,006.00	\$283,458.70
Corrective and Emergency Services*				
Subtotal	\$100,000.00	\$100,000.00	\$100,000.00	\$300,000.00
TOTAL	\$205,446.70	\$189,006.00	\$189,006.00	\$583,458.70

Year 1: Start-up Annual Cleaning and Inspection Services

Years 2 and 3: Routine Annual Inspection Services

**Unspent funds will be rolled over to the next year.*

Labor Hourly Rates

Services	Hourly Rates*	Staff
IW Straight time	\$216.28	John Dendy, Richard Hodges
IW OT	\$312.90	John Dendy, Richard Hodges
Comm Tech	\$148.21	Roderick Ward, Joshua Castaneda
Comm Tech OT	\$192.01	Roderick Ward, Joshua Castaneda
Cable splicer	\$276.75	Le Nguyen
Cable splicer OT	\$321.10	Le Nguyen
Comm installer	\$137.55	Roderick Ward, Joshua Castaneda
Comm installer OT	\$176.02	Roderick Ward, Joshua Castaneda
Laborer	\$128.43	Roderick Ward, Joshua Castaneda
Laborer OT	\$158.50	Roderick Ward, Joshua Castaneda
Project Manager	\$170.06	Bruce Dressel

*All Equipment cost is included in the hourly rates shown above.