



ARLINGTON COUNTY, VIRGINIA  
OFFICE OF THE PURCHASING AGENT  
2100 CLARENDON BOULEVARD, SUITE 500  
ARLINGTON, VIRGINIA 22201

**CONTRACT AWARD COVER PAGE**

<b>TO:</b> MOBOTREX 1550 STANDIG RIDGE DRIVE POWHATAN, VA 23139	<b>DATE ISSUED:</b> NOVEMBER 22, 2022
	<b>CONTRACT NO:</b> 23-DES-ITB-164c
	<b>CONTRACT TITLE:</b> TRAFFIC SIGNAL & ITS EQUIPMENT

**THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.**

The contract documents consist of the terms and conditions of AGREEMENT No. XX-XXX-X including any attachments or amendments thereto.

**EFFECTIVE DATE:** DECEMBER 1, 2022

**EXPIRES:** NOVEMBER 30, 2023

**RENEWALS:** THIS IS THE BASE YEAR AWARD NOTICE OF A POSSIBLE 5 YEAR CONTRACT.

**COMMODITY CODE(S):** 55080, 55081, 55088, 55089, 93649

**LIVING WAGE:** N

**ATTACHMENTS:**

AGREEMENT No. 23-DES-ITB-164a

**EMPLOYEES NOT TO BENEFIT:**

**NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.**

**VENDOR CONTACT:** WILLIAM E. LAMIE **VENDOR TEL. NO.:** (804) 843-8877

**EMAIL ADDRESS:** [WLAMIE@MOBOTREX.COM](mailto:WLAMIE@MOBOTREX.COM)

**COUNTY CONTACT:** DEL GANN III **COUNTY TEL. NO.:** (703) 228-3937

**COUNTY CONTACT EMAIL:** [RGANN@ARLINGTONVA.US](mailto:RGANN@ARLINGTONVA.US)

**PURCHASING DIVISION AUTHORIZATION**

**REBECCA KIRBY** TITLE: **PURCHASING OFFICER** DATE: **11/21/22**



**ARLINGTON COUNTY, VIRGINIA  
OFFICE OF THE PURCHASING AGENT  
SUITE 500, 2100 CLARENDON BOULEVARD  
ARLINGTON, VA 22201**

***AGREEMENT NO. 23-DES-ITBLW-164c***

THIS AGREEMENT is made, on December 1, 2022, between Mobotrex, 1550 Standig Ridge Drive, Powhatan, Virginia 23139 (“Contractor”) an Iowa corporation authorized to do business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia (“County”). The County and the Contractor, for the consideration hereinafter specified, agree as follows:

**1. CONTRACT DOCUMENTS**

The “Contract Documents” consist of this Agreement, bid of the successful Bidder (hereinafter “Contractor”) and Arlington County (hereinafter “County”) Invitation to Bid No. 23-DES-ITBLW-164

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either party has made any representation or promise with respect to the parties’ agreement that is not contained in the Contract Documents. The Contract Documents may be referred to below as the “Contract” or the “Agreement”.

**2. SCOPE OF WORK**

The Contractor agrees to perform the services described in the Contract Documents (the “Work”), more particularly described in the Scope of Services included with the Invitation to Bid. The primary purpose of the Work is for the Contractor to provide the Traffic Signal and ITS Equipment. The Contract Documents set forth the minimum work estimated by the County and the Contractor to be necessary to complete the Work. It will be the Contractor’s responsibility, at its sole cost, to provide the services set forth in the Contract Documents and sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents limits the Contractor's responsibility to manage the details and execution of the Work.

**3. PROJECT OFFICER**

The performance of the Contractor is subject to the review and approval of the County Project Officer, who will be appointed by the Director of the Arlington County department or agency requesting the Work under this Contract.

**4. CONTRACT TERM**

Time is of the essence. The Work will commence on December 1, 2022 and must be completed no later than November 30, 2023 ("Initial Contract Term"), subject to any modifications provided in the Contract Documents. Upon satisfactory performance by the Contractor the County may, through issuance of a bilateral Notice of Renewal, authorize continuation of the Agreement under the same contract prices for not more than 4 additional 12-month periods, from December 1, 2023 to November 30, 2027 (each a "Subsequent Contract Term"). The Initial Contract Term and any Subsequent Contract Term(s) are together the "Contract Term".

**5. CONTRACT PRICING**

Unless otherwise provided in the Contract Documents, the Contractor shall provide the goods and services covered in the County's Invitation to Bid No. 23-DES-ITB-164 at the prices provided in the bid of the Contractor.

**6. CONTRACT PRICING WITH OPTIONAL PRICE ADJUSTMENTS**

The Contract Amount/unit price(s) will remain firm until [end date of base year] ("Price Adjustment Date"). To request a price adjustment, the Contractor or the County must submit a written request to the other party not less than 90 days before the Price Adjustment Date. Adjustments to the Contract Amount/unit price(s) will not exceed the percentage of change in the U.S. Department of Labor Producer Price Index, Table 9, not Seasonally Adjusted ("PPI") for the 12 months of statistics available at the time of the Contract's renewal.

Any Contract Amount/unit price(s) that result from this provision will become effective the day after the Price Adjustment Date and will be binding for 12 months. The new Price Adjustment Date will be 12 months after the price adjustment.

If the Contractor and the County have not agreed on a requested adjustment by 30 days before the Price Adjustment Date, the County may not renew the Contract, whether or not the County has previously elected to renew the Contract's term.

**7. PAYMENT TERMS**

The Contractor must submit invoices to the County's Project Officer, who will either approve the invoice or require corrections. The County will pay the Contractor within 45 days after receipt of an invoice for completed work that is reasonable and allocable to the Contract and that has been performed to the satisfaction of the Project Officer. All payments will be made from the County to the Contractor via ACH. The number of the County Purchase Order pursuant to which goods or services have been delivered or performed must appear on all invoices.

If the County makes a partial payment, it may retain 5% of the estimate upon which the partial payment is based until completion and final acceptance of the Work.

**8. PAYMENT OF SUBCONTRACTORS**

The Contractor is obligated to take one of the two following actions within seven days after receipt of payment by the County for work performed by any subcontractor under this Contract:

- a. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or

- b. Notify the County and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment, with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven days following receipt by the Contractor of payment from the County for work performed by the subcontractor under this Contract, except for amounts withheld as allowed in subsection b., above. Unless otherwise provided under the terms of this Contract, interest will accrue at the rate of 1% per month.

The Contractor must include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

**9. NO WAIVER OF RIGHTS**

The County's approval or acceptance of or payment for any goods or services under this Contract will not waive any rights or causes of action arising out of the Contract.

**10. NON-APPROPRIATION**

All payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia ("Board"). In the event that the Board does not appropriate funds for the goods or services provided under this Contract, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the fiscal year or when the previous appropriation has been spent, whichever event occurs first.

**11. ESTIMATED QUANTITIES/NON-EXCLUSIVITY OF CONTRACTOR**

This Contract does not obligate the County to purchase a specific quantity of items or services during the Contract Term. Any quantities that are included in the Contract Documents are the present expectations of the County for the period of the Contract; and the County is under no obligation to buy that or any amount as a result of having provided this estimate or of having had any normal or otherwise measurable requirement in the past. The County may require more goods and/or services than the estimated annual quantities, and any such additional quantities will not give rise to any claim for compensation other than at the unit prices and/or rates in the Contract.

The County does not guarantee that the Contractor will be the exclusive provider of the goods or services covered by this Contract. The items or services covered by this Contract may be or become available under other County contract(s), and the County may determine that it is in its best interest to procure the items or services through those contract(s).

**12. COUNTY PURCHASE ORDER REQUIREMENT**

County purchases are authorized only if the County issues a Purchase Order in advance of the transaction, indicating that the ordering County agency has sufficient funds available to pay for the purchase. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk

and expense. The County will not be liable for payment for any purchases made by its employees that are not authorized by the County Purchasing Agent.

**13. DELIVERY**

All goods are purchased F.O.B. destination in Arlington County as described in the specifications. Transportation, handling and all related charges are included in the unit prices or discounts that the Contractor submitted with its bid.

**14. WARRANTY**

The Contractor guarantees against and will correct at its expense factory defects that occur during the manufacturer's standard warranty period. The Contractor will provide all manufacturers' warranties at the time of delivery.

All work is guaranteed by the Contractor against defects resulting from the use of inferior or faulty materials or workmanship for one (1) year from the date of final acceptance of the work by the County. No date other than the date of final acceptance shall govern the effective date of the Guaranty, unless that date is agreed upon by the County and the Contractor in advance and in a signed writing.

**15. INSPECTION, ACCEPTANCE, TITLE, AND RISK OF LOSS**

The County will inspect all materials at the delivery location within ten days of delivery and may test the goods at its sees fit before accepting them.

The Contractor warrants that it has good title to and will require all subcontractors to warrant that they have good title to, all delivered goods.

The Contractor bears title and risk of loss or damage to all delivered goods until the County accepts them.

Neither the Contractor nor any subcontractor may retain any interest in the goods after the County accepts them.

**16. DAMAGE TO PROPERTY**

Any damage, as determined by the Project Officer, to the real or personal property, whether owned by the County or others, resulting from the Work performed under this Contract shall be timely repaired or replaced to the County's satisfaction at the Contractor's expense. The County will perform the repairs unless the County agrees that such repairs will be made by the Contractor. Any such Contractor repairs will be made within ten (10) days of the date of damage to the satisfaction of the County. All costs of the repair performed by the County shall be deducted from the Contractor's final payment.

**17. CLEANING UP**

The Contractor shall remove, as frequently as necessary, all refuse, rubbish, scrap materials and debris from any and all work sites to the extent that the trash is the result of the Contractor's operations, to the end that any and all work sites shall present a neat, orderly, and workmanlike appearance at all times. At completion of the Work, but before final acceptance, the Contractor shall remove all surplus material, falsework, temporary structures including foundations thereof, and debris of every nature resulting from the Contractor's operations or resulting from any activity on the site related to the Contractor's operations and put the site in a neat, orderly condition; if the Contractor fails to do so, the County shall have the right to remove the surplus material, falsework, temporary structures including foundations thereof, and

debris, put the site in a neat, orderly condition, and charge the cost to the Contractor. The County shall be entitled to offset such cost against any sums owed by the County to the Contractor under this Contract.

**18. DISPOSAL OF PACKING MATERIALS, TRASH AND DEBRIS**

The Contractor must, at its expense and without using any County waste containers, immediately remove and legally dispose of off-site all packing materials, trash and debris (“Waste”). Otherwise, the County will contract a third party to dispose of the Waste and will deduct the expense from the final payment to the Contractor.

The County will deduct from the final payment the expense to repair any damage to County-owned or controlled property that the Contractor or its agents cause, unless the County agrees that the Contractor can make the repairs, in which case the Contractor must make the repairs at its expense within ten days of the damage and to the satisfaction of the County.

**19. OSHA REQUIREMENTS**

The Contractor certifies that all material supplied or used under this Contract meets all federal and state Occupational Safety and Health Administration (“OSHA”) requirements. If the material does not meet the OSHA requirements, the Contractor will bear all costs necessary to bring the material into compliance.

**20. HAZARDOUS MATERIALS**

The Contractor must comply with all federal, state, and local laws governing the storage, transportation, and use of toxic and hazardous materials. The County is subject to the Hazard Communication Standard, 29 CFR § 1910.1200 (“Standard”). The Contractor will provide, no later than delivery or first use of the materials, Material Safety Data Sheets (“MSDS”) for all hazardous materials supplied to the County or used in the performance of the Work. The Contractor will also ensure that all shipping and internal containers bear labels that meets the requirements of the Standard. The County may refuse shipments of hazardous materials that are not appropriately labeled or for which the Contractor has not timely provided MSDS. The Contractor must pay any expenses that it or the County incurs as a result of the County’s refusal of goods under this section or rejection of MSDS.

**21. HAZARDOUS WASTE GENERATOR/HAZARDOUS WASTE DISPOSAL**

The County and the Contractor shall be listed as co-generators. The Contractor assumes all duties pertaining to the waste generator, including signing the Waste Shipment Record (“WSR”) and manifest. The Contractor shall supply the County Project Officer with the executed original Owner’s Copy of the WSR, as required by applicable regulatory agencies within thirty-five (35) days from the time the waste was accepted by the initial waste transporter, and prior to request for final payment. A separate WSR shall be submitted for each shipment to the disposal site.

Delayed Waste Shipment Records: The Contractor shall report in writing to the Environmental Protection Agency (EPA) Region III office within forty-five (45) days if an executed copy of the WSR is not received from the operator of the disposal site. The report to the EPA regional office shall include a copy of the original WSR and a cover letter signed by the Contractor stating the efforts taken to locate the hazardous waste shipment and the results of those efforts.

Temporary Hazardous Waste Storage Prohibited: The Contractor shall not temporarily store hazardous waste unless pre-approved by the County. If so approved, hazardous waste stored off-site in a temporary

facility shall be monitored, and records shall be kept on the number of containers, size, and weight. The Contractor shall inform the County when the hazardous waste is to be transported to the final disposal site. The County has the right to inspect the temporary site at any time. The Contractor shall submit copies of all relevant manifests, WSRs, and landfill receipts to the County Project Officer prior to the request for final payment. All paperwork shall be signed by the Contractor and disposal site operator as required.

**22. PROHIBITION AGAINST ASBESTOS-CONTAINING MATERIALS**

No goods, equipment, or material that the Contractor or its subcontractor provides or installs may contain asbestos. The Contractor must remove any asbestos-containing goods, equipment, and material at its sole cost, which includes worker protection and legal disposal, and must reimburse the County for the replaced goods, equipment, and material. The County may offset these costs and reimbursement against any amounts that it owes the Contractor.

**23. SAFETY**

The Contractor shall comply with, and ensure that the Contractor's employees and subcontractors comply with, all current applicable local, state and federal policies, regulations and standards relating to safety and health, including, by way of illustration and not limitation, the standards of the Virginia Occupational Safety and Health program of the Department of Labor and Industry for General Industry and for the Construction Industry, the Federal Environmental Protection Agency standards and the applicable standards of the Virginia Department of Environmental Quality.

The Contractor shall provide, or cause to be provided, all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the work specified to be performed by the Contractor and subcontractor(s).

The Contractor shall identify to the County Project Officer at least one on-site person who is the Contractor's competent, qualified, and authorized person on the worksite and who is, by training or experience, familiar with and trained in policies, regulations and standards applicable to the work being performed. The competent, qualified and authorized person must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, shall be capable of ensuring that applicable safety regulations are complied with, and shall have the authority and responsibility to take prompt corrective measures, which may include removal of the Contractor's personnel from the work site.

The Contractor shall provide to the County, at the County's request, a copy of the Contractor's written safety policies and safety procedures applicable to the scope of work. Failure to provide this information within seven (7) days of the County's request may result in cancellation of the contract.

**24. COVID-19 VACCINATION POLICY FOR CONTRACTORS**

Due to the ongoing COVID-19 pandemic, the County has taken various steps to protect the welfare, health, safety, and comfort of the workforce and public at large. As part of these steps, the County has implemented various requirements with respect to health and safety including policies with respect to social distancing, the use of face-coverings and vaccine mandates. To protect the County's workforce and the public at large, all employees and subcontractors of the Contractor who are assigned to this Contract, should be fully vaccinated against COVID-19. Any contractor employee or subcontractor who is not fully vaccinated should be following a weekly testing protocol as established by the Contractor, unless exempt pursuant to a valid reasonable accommodation under state or federal law.

**25. FAILURE TO DELIVER**

If the Contractor fails to deliver goods or services in accordance with the Contract terms and conditions, the County, after notice to the Contractor, may procure the goods or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor. However, if public necessity requires the use of nonconforming materials or supplies, they may be accepted at a reduction in price to be determined solely by the County.

**26. UNSATISFACTORY WORK**

The Contractor must within 15 days of written notice from the County remove and replace, at its expense, any goods that the County rejects as unsatisfactory. Otherwise, the County may choose to remove or replace the rejected goods at the Contractor's expense. The County may offset the costs against any amounts that it owes the Contractor. The County may also decide not to remove or replace the unsatisfactory goods and instead to adjust the Contract Amount to account for the unsatisfactory performance. This paragraph applies throughout the Contract Term and any warranty or guarantee period.

**27. PROJECT STAFF**

The County has the right to reasonably reject staff or subcontractors whom the Contractor assigns to the Project. The Contractor must then provide replacement staff or subcontractors satisfactory to the County in a timely manner and at no additional cost to the County. The day-to-day supervision and control of the Contractor's employees and its subcontractors is the sole responsibility of the Contractor.

**28. SUPERVISION BY CONTRACTOR**

The Contractor shall at all times enforce strict discipline and good order among the employees and subcontractors performing under this Contract and shall not employ on the Work any person not reasonably proficient in the work assigned.

**29. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED**

During the performance of its work pursuant to this Contract:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, national origin, age, disability or on any other basis prohibited by state law. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation will be deemed sufficient for meeting the requirements of this section.
- C. The Contractor will state in all solicitations or advertisements for employees that it places or causes to be placed that such Contractor is an Equal Opportunity Employer.
- D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 ("ADA"), which prohibits discrimination against individuals with disabilities in employment and mandates that disabled individuals be provided access to publicly and privately provided services and activities.



- E. The Contractor must include the provisions of the foregoing paragraphs in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

**30. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED**

In accordance with §2.2-4311.1 of the Code of Virginia, as amended, the Contractor must not during the performance of this Contract knowingly employ an unauthorized alien, as that term is defined in the federal Immigration Reform and Control Act of 1986.

**31. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR**

During the performance of this Contract, the Contractor must: (i) provide a drug-free workplace for its employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violating such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "workplace" means the site(s) for the performance of the work required by this Contract.

**32. \*SEXUAL HARASSMENT POLICY**

If the Contractor employs more than five employees, the Contractor shall (i) provide annual training on the Contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and (ii) post the Contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes and (b) the Contractor's employee handbook.

**33. TERMINATION**

The County may terminate this Contract at any time as follows: (1) for cause, if, as determined by the County, the Contractor is in breach or default or has failed to perform the Work satisfactorily; or (2) for the convenience of the County.

Upon receipt of a notice of termination, the Contractor must not place any further orders or subcontracts for materials, services or facilities; must terminate all vendors and subcontracts, except as are necessary for the completion of any portion of the Work that the County did not terminate; and must immediately deliver all documents related to the terminated Work to the County.

Any purchases that the Contractor makes after the notice of termination will be the sole responsibility of the Contractor, unless the County has approved the purchases in writing as necessary for completion of any portion of the Work that the County did not terminate.

If any court of competent jurisdiction finds a termination for cause by the County to be improper, then the termination will be deemed a termination for convenience.

A. TERMINATION FOR CAUSE, INCLUDING BREACH AND DEFAULT; CURE

1. Termination for Unsatisfactory Performance. If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. The Contractor must submit any request for termination costs, with all supporting documentation, to the County Project Officer within 30 days after the expiration of the Cure Period. The County may accept or reject the request for termination costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the termination date, and the County must continue to pay all fees and charges incurred through the termination date.

2. Termination for Breach or Default. If the County terminates the Contract for default or breach of any Contract provision or condition, then the termination will be immediate after notice of termination to the Contractor (unless the County provides for an opportunity to cure), and the Contractor will not be permitted to seek termination costs.

Upon any termination pursuant to this section, the Contractor will be liable to the County for costs that the County must expend to complete the Work, including costs resulting from any related delays and from unsatisfactory or non-compliant work performed by the Contractor or its subcontractors. The County will deduct such costs from any amount due to the Contractor; or if the County does not owe the Contractor, the Contractor must promptly pay the costs within 15 days of a demand by the County. This section does not limit the County's recovery of any other damages to which it is entitled by law.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt the notice of the termination.

B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY

The County may terminate this Contract in whole or in part whenever the Purchasing Agent determines that termination is in the County's best interest. The County will give the Contractor at least 15 days' notice in writing. The notice must specify the extent to which the Contract is terminated and the effective termination date. The Contractor will be entitled to termination costs plus any other reasonable amounts that the parties might negotiate; but no amount will be allowed for anticipatory profits.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt of the notice of the termination.

**34. INDEMNIFICATION**

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees and/or subcontractors, in performance or nonperformance of the Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

The Contractor agrees to defend, indemnify, and hold harmless County from any and all damages, costs, claims, expenses, suits, losses, liabilities, or obligations of any kind including without limitation, environmental assessments, evaluations, fines, penalties, and clean-up costs which may be asserted against or imposed upon, or incurred by County arising from Contractor's discharge or disposal of any hazardous or toxic materials, trash, debris, refuse, waste or other materials ("Materials") related in any way to contractor's operations herein.

**35. INTELLECTUAL PROPERTY INDEMNIFICATION**

The Contractor warrants and guarantees that in providing services under this Contract neither the Contractor nor any subcontractor is infringing on the intellectual property rights (including, but not limited to, copyright, patent, mask and trademark) of third parties.

If the Contractor or any of its employees or subcontractors uses any design, device, work or material that is covered by patent or copyright, it is understood that the Contract Amount includes all royalties, licensing fees, and any other costs arising from such use in connection with the Work under this Contract.

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless, and indemnify the County Indemnitees, as defined above, from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability or exposure for infringement of or on account of any trademark, copyright, patented or unpatented invention, process or article manufactured or used in the performance of this Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

**36. COPYRIGHT**

By this Contract, the Contractor irrevocably transfers, assigns, sets over and conveys to the County all rights, title and interest, including the sole exclusive and complete copyright interest, in any and all copyrightable works created pursuant to this Contract. The Contractor will execute any documents that the County requests to formalize such transfer or assignment.

The rights granted to the County by this section are irrevocable and may not be rescinded or modified, including in connection with or as a result of the termination of or a dispute concerning this Contract.

The Contractor may not use subcontractors or third parties to develop or provide input into any copyrightable materials produced pursuant to this Contract without the County's advance written approval and unless the Contractor includes this Copyright provision in any contract or agreement with such subcontractors or third parties related to this Contract.

**37. OWNERSHIP AND RETURN OF RECORDS**

This Contract does not confer on the Contractor any ownership rights or rights to use or disclose the County's data or inputs.

All drawings, specifications, blueprints, data, information, findings, memoranda, correspondence, documents or records of any type, whether written, oral or electronic, and all documents generated by the Contractor or its subcontractors as a result of this Contract (collectively "Records") are the exclusive property of the County and must be provided or returned to the County upon completion, termination, or cancellation of this Contract. The Contractor will not use or willingly cause or allow such materials to be used for any purpose other than performance of this Contract without the written consent of the County.

The Records are confidential, and the Contractor will neither release the Records nor share their contents. The Contractor will refer all inquiries regarding the status of any Record to the Project Officer or to his or her designee. At the County's request, the Contractor will deliver all Records, including hard copies of electronic records, to the Project Officer and will destroy all electronic Records.

The Contractor agrees to include the provisions of this section as part of any contract or agreement related to this Contract into which it enters with subcontractors or other third parties.

The provisions of this section will survive any termination or cancellation of this Contract.

**38. CONFIDENTIAL INFORMATION**

The Contractor and its employees, agents and subcontractors will hold as confidential all County information obtained under this Contract. Confidential information includes, but is not limited to, nonpublic personal information; personal health information (PHI); social security numbers; addresses; dates of birth; other contact information or medical information about a person; and information pertaining to products, operations, systems, customers, prospective customers, techniques, intentions, processes, plans and expertise. The Contractor must take reasonable measures to ensure that all of its employees, agents and subcontractors are informed of and abide by this requirement.

**39. ETHICS IN PUBLIC CONTRACTING**

This Contract incorporates by reference Article 9 of the Arlington County Purchasing Resolution, as well as all state and federal laws related to ethics, conflicts of interest or bribery, including the State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.). The Contractor certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other offeror,

supplier, manufacturer or subcontractor; and that it has not conferred on any public employee having official responsibility for this procurement any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

**40. COUNTY EMPLOYEES**

No Arlington County employee may share in any part of this Contract or receive any benefit from the Contract that is not available to the general public.

**41. FORCE MAJEURE**

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract, provided that the affected party gives notice to the other party as soon as practicable after the force majeure event, including reasonable detail and the expected duration of the event's effect on the party.

**42. AUTHORITY TO TRANSACT BUSINESS**

The Contractor must, pursuant to Code of Virginia § 2.2-4311.2, be and remain authorized to transact business in the Commonwealth of Virginia during the entire term of this Contract. Otherwise, the Contract is voidable at the sole option of and with no expense to the County.

**43. RELATION TO COUNTY**

The Contractor is an independent contractor, and neither the Contractor nor its employees or subcontractors will be considered employees, servants or agents of the County. The County will not be responsible for any negligence or other wrongdoing by the Contractor or its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes or Social Security tax or for any other benefits. The County will not provide to the Contractor any insurance coverage or other benefits, including workers' compensation.

**44. ANTITRUST**

The Contractor conveys, sells, assigns and transfers to the County all rights, title and interest in and to all causes of action under state or federal antitrust laws that the Contractor may have relating to this Contract.

**45. REPORT STANDARDS**

The Contractor must submit all written reports required by this Contract for advance review in a format approved by the Project Officer. Reports must be accurate and grammatically correct and should not contain spelling errors. The Contractor will bear the cost of correcting grammatical or spelling errors and inaccurate report data and of other revisions that are required to bring the report(s) into compliance with this section.

Whenever possible, proposals must comply with the following guidelines:

- printed double-sided on at least 30% recycled-content and/or tree-free paper
- recyclable and/or easily removable covers or binders made from recycled materials (proposals with glued bindings that meet all other requirements are acceptable)
- avoid use of plastic covers or dividers

- avoid unnecessary attachments or documents or superfluous use of paper (e.g. separate title sheets or chapter dividers)

**46. AUDIT**

The Contractor must retain all books, records and other documents related to this Contract for at least five years, or such period of time required by the County's funding partner(s), if any, whichever is greater, after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within 30 days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five years after the final payment, or such period of time required by the County's funding partner(s), if any, whichever is greater, the Contractor must give the County at least 30 days' notice and must not dispose of the documents if the County objects.

The Purchasing Agent may require the Contractor to demonstrate that it has the necessary facilities, ability, and financial resources to comply with the Contract and furnish the service, material or goods specified herein in a satisfactory manner at any time during the term of this Contract.

**47. ASSIGNMENT**

The Contractor may not assign, transfer, convey or otherwise dispose of any award or any of its rights, obligations or interests under this Contract without the prior written consent of the County.

**48. AMENDMENTS**

This Contract may not be modified except by written amendment executed by persons duly authorized to bind the Contractor and the County.

**49. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES**

Nothing in this Contract waives any provision of the Arlington County Purchasing Resolution, which is incorporated herein by reference, or any applicable County policy.

**50. DISPUTE RESOLUTION**

All disputes arising under this Agreement or concerning its interpretation, whether involving law or fact and including but not limited to claims for additional work, compensation or time, and all claims for alleged breach of contract must be submitted in writing to the Project Officer as soon as the basis for the claim arises. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than 60 days after the final payment. The time limit for a final written decision by the County Manager is 30 days. Procedures concerning contractual claims, disputes, administrative appeals and protests are contained in the Arlington County Purchasing Resolution. The Contractor must continue to work as scheduled pending a decision of the Project Officer, County Manager, County Board or a court of law

**51. APPLICABLE LAW, FORUM, VENUE AND JURISDICTION**

This Contract is governed in all respects by the laws of the Commonwealth of Virginia; and the jurisdiction, forum and venue for any litigation concerning the Contract or the Work is in the Circuit Court for Arlington County, Virginia, and in no other court.

**52. ARBITRATION**

No claim arising under or related to this Contract may be subject to arbitration.

**53. NONEXCLUSIVITY OF REMEDIES**

All remedies available to the County under this Contract are cumulative, and no remedy will be exclusive of any other at law or in equity.

**54. NO WAIVER**

The failure to exercise a right provided for in this Contract will not be a subsequent waiver of the same right or of any other right.

**55. SEVERABILITY**

The sections, paragraphs, clauses, sentences, and phrases of this Contract are severable; and if any section, paragraph, clause, sentence or phrase of this Contract is declared invalid by a court of competent jurisdiction, the rest of the Contract will remain in effect.

**56. NO WAIVER OF SOVEREIGN IMMUNITY**

Notwithstanding any other provision of this Contract, nothing in this Contract or any action taken by the County pursuant to this Contract shall constitute or be construed as a waiver of either the sovereign or governmental immunity of the County. The parties intend for this provision to be read as broadly as possible.

**57. ATTORNEY'S FEES**

In the event that the County prevails in any legal action or proceeding brought by the County to enforce any provision of this Contract, the Contractor will pay the County's reasonable attorney's fees and expenses.

**58. SURVIVAL OF TERMS**

In addition to any statement that a specific term or paragraph survives the expiration or termination of this Contract, the following sections also survive: INDEMNIFICATION; INTELLECTUAL PROPERTY INDEMNIFICATION; RELATION TO COUNTY; OWNERSHIP AND RETURN OF RECORDS; AUDIT; COPYRIGHT; WARRANTY; DISPUTE RESOLUTION; APPLICABLE LAW AND JURISDICTION; ATTORNEY'S FEES, AND CONFIDENTIAL INFORMATION AND PROTECTION.

**59. HEADINGS**

The section headings in this Contract are inserted only for convenience and do not affect the substance of the Contract or limit the sections' scope.

**60. AMBIGUITIES**

The parties and their counsel have participated fully in the drafting of this Agreement; and any rule that ambiguities are to be resolved against the drafting party does not apply. The language in this Agreement is to be interpreted as to its plain meaning and not strictly for or against any party.

**61. NOTICES**

Unless otherwise provided in writing, all legal notices and other communications required by this Contract are deemed to have been given when either (a) delivered in person; (b) delivered by an agent, such as a delivery service; or (c) deposited in the United States mail, postage prepaid, certified or registered and addressed as follows:

**TO THE CONTRACTOR:**

William E. Lamie, Regional Sales Manager

(804) 843-8877

[wlamie@mobotrex.com](mailto:wlamie@mobotrex.com)

**TO THE COUNTY:**

Del Gann III, Project Officer

(703)228-3937

[rgann@arlingtonva.us](mailto:rgann@arlingtonva.us)

**AND**

Dr. Sharon T. Lewis, LL.M, MPS, VCO, CPPB

Purchasing Agent

Arlington County, Virginia

2100 Clarendon Boulevard, Suite 500

Arlington, Virginia 22201

Phone: (703) 228-3294

Email: [slewis1@arlingtonva.us](mailto:slewis1@arlingtonva.us)

**TO COUNTY MANAGER'S OFFICE (FOR PROJECT CLAIMS):**

Mark Schwartz, County Manager

Arlington County, Virginia

2100 Clarendon Boulevard, Suite 318

Arlington, Virginia 22201

**62. ARLINGTON COUNTY BUSINESS LICENSES**

The Contractor must comply with the provisions of Chapter 11 ("Licenses") of the Arlington County Code, if applicable. For information on the provisions of that Chapter and its applicability to this Contract, the Contractor must contact the Arlington County Business License Division, Office of the Commissioner of the Revenue, 2100 Clarendon Blvd., Suite 200, Arlington, Virginia, 22201, telephone number (703) 228-3060, or e-mail [business@arlingtonva.us](mailto:business@arlingtonva.us).

**63. NON-DISCRIMINATION NOTICE**

Arlington County does not discriminate against faith-based organizations.



**64. LIMITED ENGLISH PROFICIENCY**

The Contractor must comply with Executive Order 13166, Title VI of the Civil Rights Act of 1964 and make reasonable efforts to ensure that as part of the services that it provides, adequate communication services, including interpretation and translation, are available to persons who have limited English proficiency. If such services are not included in the Contract's scope of services and pricing, the Contractor will use a County-contracted service provider, and the County will pay the fees.

**65. ADA COMPLIANCE**

The Contractor is solely responsible for its compliance with the ADA and must defend and hold the County harmless from any expense or liability arising from the Contractor's non-compliance. The Contractor also must respond promptly to and cooperate fully with all inquiries from the U.S. Department of Labor.

The Contractor's responsibilities related to ADA compliance include, but are not limited to, the following:

- a. Access to Programs, Services and Facilities: The Contractor must ensure that its programs, services and facilities are accessible to persons with disabilities. If a particular facility or program is not accessible, the Contractor must provide equivalent services in an accessible alternate location or manner.
- b. Effective Communication: Upon request, the Contractor, must provide appropriate communication aids and services so that qualified persons with disabilities can participate equally in the Contractor's programs, services and activities. Communication aids and services can include, but are not limited to, qualified sign language interpreters, Braille documents and other means of facilitating communications with people who have speech, hearing or vision impairments.
- c. Modifications to Policies and Procedures: The Contractor must modify its policies and procedures as necessary to ensure that people with disabilities have an equal opportunity to enjoy the Contractor's programs, services and activities. For example, individuals' service animals must be allowed in the Contractor's offices or facilities, even if pets are generally prohibited.
- d. No Extra Charges: The Contractor may not charge a person with a disability or any group of individuals with disabilities to cover the cost of providing aids or services or of reasonable modifications to policies and procedures.

**66. INSURANCE REQUIREMENTS**

Before beginning work under the Contract or any extension, the Contractor must provide to the County Purchasing Agent a Certificate of Insurance indicating that the Contractor has in force at a minimum the coverage below. The Contractor must maintain this coverage until the completion of the Contract or as otherwise stated in the Contract Documents. All required insurance coverage must be acquired from insurers that are authorized to do business in the Commonwealth of Virginia, with a rating of "A-" or better and a financial size of "Class VII" or better in the latest edition of the A.M. Best Co. Guides.

- a. Workers Compensation - Virginia statutory workers compensation (W/C) coverage, including Virginia benefits and employer's liability with limits of \$500,000/500,000/500,000. The County will not accept W/C coverage issued by the Injured Worker's Insurance Fund, Towson, MD.

- b. Commercial General Liability - \$1,000,000 per occurrence, with \$2,000,000 annual aggregate covering all premises and operations and including personal injury, completed operations, contractual liability, independent contractors, and products liability. The general aggregate limit must apply to this Contract. Evidence of contractual liability coverage must be typed on the certificate.
- c. Business Automobile Liability - \$1,000,000 - combined single-limit for Bodily Injury/Property Damage (owned, non-owned and hired).
- d. Professional/Miscellaneous Errors & Omissions - \$1,000,000 per occurrence/claim. The Contractor shall carry Professional Liability/Miscellaneous Errors and Omissions insurance which will pay for injuries arising out of errors or omissions in the rendering, or failure to render professional services under the contract.
- e. Motor Carrier ActEnd. (MCS-90) – \$1,000,000 Bodily Injury/Property Damage each accident, Uninsured Motorist.
- f. Inland Marine – Bailee’s Insurance - All Risk insurance covering property of the County while in the care, custody, or control of the Contractor for the purpose of having operations performed upon it. Such insurance shall insure the legal liability of the contractor for the replacement cost of such property and shall be written at a limit satisfactory to the County. \$200,000 per occurrence
- g. Additional Insured – The County and its officers, elected and appointed officials, employees and agents must be listed as additional insureds on all policies except workers compensation and automotive and professional liability; and the additional insured endorsement must be typed on the certificate.
- h. In addition, this work is funded in part by a grant from the Northern Virginia Transportation Authority (NVTA). The Contractor is responsible for ensuring its compliance with all applicable NVTA requirements, and including the following:

The Contractor shall name NVTA and its Bond Trustee as an additional insured on any insurance policy issued for work to be performed for the project and present NVTA with satisfactory evidence thereof before any work on the Project commences or continues.
- i. Cancellation - If there is a material change or reduction in or cancellation of any of the above coverages during the Contract Term, the Contractor must notify the Purchasing Agent immediately and must, with no lapse in coverage, obtain replacement coverage that is consistent with the terms of this Contract. Not having the required insurance throughout the Contract Term is grounds for termination of the Contract.
- j. Claims-Made Coverage - Any “claims made” policy must remain in force, or the Contractor must obtain an extended reporting endorsement, until the applicable statute of limitations for any claims has expired.

- k. Contract Identification - All insurance certificates must state this Contract's number and title.

The Contractor must disclose to the County the amount of any deductible or self-insurance component of any of the required policies. With the County's approval, the Contractor may satisfy its obligations under this section by self-insurance for all or any part of the insurance required, provided that the Contractor can demonstrate sufficient financial capacity. In order to do so, the Contractor must provide the County with its most recent actuarial report and a copy of its self-insurance resolution.

The County may request additional information to determine if the Contractor has the financial capacity to meet its obligations under a deductible and may require a lower deductible; that funds equal to the deductible be placed in escrow; a certificate of self-insurance; collateral; or another mechanism to guarantee the amount of the deductible and ensure protection for the County.

The County's acceptance or approval of any insurance will not relieve the Contractor from any liability or obligation imposed by the Contract Documents.

The Contractor is responsible for the Work and for all materials, tools, equipment, appliances and property used in connection with the Work. The Contractor assumes all risks for direct and indirect damage or injury to the property used or persons employed in connection with the Work and for of all damage or injury to any person or property, wherever located, resulting from any action, omission, commission or operation under the Contract or in connection in any way whatsoever with the Work. The Contractor's insurance shall be the primary non-contributory insurance for any work performed under this Contract.

The Contractor is as fully responsible to the County for the acts and omissions of its subcontractors and of persons employed by them as it is for acts and omissions of persons whom the Contractor employs directly.

**67. MATERIAL CHANGES**

The Contractor shall notify Purchasing Agent within seven days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

**68. CONTRACTOR PERFORMANCE EVALUATION**

Arlington County will perform written evaluations of the Contractor's performance at various intervals throughout the term of this Contract. The evaluations will address, at a minimum, the Contractor's work/performance, quality, cost controls, schedule, timeliness and sub-contractor management. The Project Officer shall be responsible for completing the evaluations and providing a copy to the Contractor and County Procurement Officer.

**69. COUNTERPARTS**

This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON  
COUNTY, VIRGINIA

AUTHORIZED DocuSigned by:  
SIGNATURE: *Rebecca Kirby*  
FFC812B9E25C403...  
NAME: Rebecca Kirby  
TITLE: Procurement officer  
DATE: 12/19/2022

MOBOTREX

AUTHORIZED DocuSigned by:  
SIGNATURE: *Paul Thompson*  
A890C6BFEABD40E...  
NAME: Paul D. Thompson  
TITLE: Vice President, Mid-Atlantic  
DATE: 11/28/2022

## EXHIBIT A

### SUPPLEMENTAL SPECIFICATIONS

#### GENERAL

- *All materials and equipment shall conform to the requirements listed in the County's ACTSS.*
- *These Supplemental Specifications (Attachment A) are meant to supplement the ACTSS. If discrepancies exist between ACTSS and Attachment A, Attachment A shall govern.*
- *These Specifications are also meant to supplement the existing County specifications and do not replace them.*
- *Items not described herein or in the ACTSS will default back to VDOT Road and Bridge Standards and Specifications, latest edition.*
- *Samples: The Bidder shall submit cut sheets for all items of the section they are bidding on in order to be considered responsive. The cut sheets shall contain all technical specifications and a physical description for the items and display whether the items meet the technical specifications provided by the County. The County may request a physical sample of the product(s) for evaluation if they deem it necessary to determine product qualification(s). If a physical sample is needed, the Procurement Officer will contact you with further details.*

THE FOLLOWING SPECIFICATIONS ARE NUMBERED  
ACCORDING TO THE ITB SECTIONS AWARDED:  
(I, II, VI, VII, VIII, IX, X, & XI)

#### I. TESTING SERVICES AND EQUIPMENT

##### A. *General*

This section contains items required for the testing, maintenance, and continued operation of the existing ITS equipment both in a testing environment and in the field.

##### B. *Cabinet Test Display*

1. The Cabinet Test Display shall have all indications but draw enough load to test Standard TS2-1 Traffic Signal Cabinets.
2. The Cabinet Test Display shall accommodate the following:
  - a) Four (4) Flashing Yellow Arrow Phases labeled Phase 1, 3, 5, & 7,
  - b) Four (4) standard vehicle phases,
  - c) Four (4) standard pedestrian phases labeled 'two (2) PED, four (4) PED, six (6) PED, and eight (8) PED,'
  - d) Four (4) standard overlap phases labeled 'Overlap A, B, C, & D,' and
  - e) Four (4) single indication Channels labeled 'A, B, C, & D'
3. The cabinet test display shall be no larger than 12 inches tall and 14 inches wide, three (3) inches deep, and shall be designed to hang on the top front of the cabinet door drip rail.

C. *Handheld Loop Test Kit.*

1. The Handheld loop Testing Kit shall contain the following items:
  - a) Handheld Inductive Loop Tester,
    - (1) Shall have an eight (8) button User Interface and a two (2) line, 16-character liquid crystal display (LCD) display.
  - b) Handheld Loop Finder,
  - c) Digital Multimeter, and
  - d) Cables and accessories as listed:
    - Two (2) sets of red/black test leads,
    - Two (2) sets of red/black alligator clips,
    - One (1) set of red/black maxi-pincers,
    - One (1) black test probe and a Loop Finder Handle Bracket, and
    - One (1) sturdy injection molded carrying case.

D. *Virtual Test Cabinet*

1. Shall work with TS2 and ATC traffic signal cabinets.
2. Shall be able to operate in Virtual cabinet mode or virtual controller mode.
3. Shall come equipped with one each of the following:
  - TS2 Controller cable
  - TS2 BIU cable
  - iiATC BIU cable
  - ATC SIU cable

II. CABINET COMPONENTS & REPLACEMENT PARTS

A. *General*

This section contains items required for the maintenance and continued operation of the existing TS2-1 Traffic Signal cabinets in the field.

B. *Shelf Mount TS-2 Power Supply*

1. Shall meet all requirements for NEMA TS2-2016,
2. Shall have an operating AC input voltage of 80-135 VAC,
3. Shall provide 24 vdc @ three (3) amps,
4. Shall provide 12 VDC @ five (5) amps,
5. Shall provide 12 VAC @ 0.25 amps, and
6. Shall have LED indicators and fuses for all three (3) voltage outputs.

C. *Din Rail Mount Power Supply*

1. Shall be Din rail mountable,
2. Shall have an operating AC input voltage of 90-264 VAC,
3. Shall provide 24 vdc @ 2.1 amps, and
4. Shall have LED indicators for voltage output.

D. *16 Channel TS2 Smart MMU*

1. Shall have three (3) LCD screens; two (2) of which are for a continuous full intersection display and one (1) for a menu driven interface to access the status, configuration, event logs, signal voltages, and integrated help system.
2. Shall have a built-in setup wizard for monitor programming.
3. Shall have a built in Diagnostic Wizard to assist in pinpointing the fault during a signal malfunction.
4. Shall have an ethernet port for communication with the traffic management system.
5. Shall be compatible with Eberle Design Incorporated (EDI) ECcom software that the County currently uses for similar field devices.
6. Shall be able to monitor Flashing Yellow Arrow (FYA) as a part of standard programming.

E. *6 Channel TS1 Conflict Monitor*

1. Shall have two (2) LCD screens; two (2) of which are for a continuous full intersection display.
2. Shall have an ethernet port for communication with the traffic management system.
3. Shall be compatible with EDI ECcom software that the County currently uses for similar field devices.

VI. TRAFFIC SIGNALS AND MOUNTING EQUIPMENT

A. *General*

This section contains the items required for signalization and signage with additional required parts and mounting hardware. (See item numbers 10-24 and 33) noted as *Energy Efficient on ATTACHMENT B.*)

B. *Signal Heads shall:*

1. Come fully assembled with the LED modules installed with quick connect kits for the vehicle heads which includes the housings and LED modules.
2. Be powder coated, federal yellow, aluminum with stainless steel hardware.
3. Have terminal bars installed for connection between the LED modules and the signal cable, and LED wiring shall be terminated on the terminal bar with enough slack to open the head to tighten the head and/or replace LED modules without restriction.

- a) Pedestrian Signal heads shall have a terminal bar in the head as well as in the termination compartment or counting clamshell.
- b) Three (3) section signal heads shall have the terminal bar installed in the yellow or center section of the head.
- c) Four (4) section signal heads shall have the terminal bar installed in the upper center section of the head.
- d) Five section cluster heads shall have a six-position primary terminal bar installed in the red section of the head and secondary terminal bars installed in each yellow section with jumpers installed between the primary and secondary terminal bars.
- e) Five (5) section standard signal heads shall have a terminal bar in the center section of the head.
- f) Three (3) section cluster heads shall have the terminal bar in the upper left section of the head.

4. Signal heads ordered with mounting hardware shall come fully assembled with all the necessary wiring installed and terminated.
5. All Light-emitting diode (LED) modules shall have a clear uniform appearance lens.
6. Signal heads ordered with mounting hardware shall come fully assembled with all the necessary wiring installed and terminated.
7. All Light-emitting diode (LED) modules shall have a clear uniform appearance lens.
8. LED Modules shall be covered by a 15-year warranty
9. Signal Backplates shall be fabricated from black dual durometer thermoplastics for maximum rigidity and flexibility.
10. Signal Backplates shall have a three (3) inch reflective border.
11. Signal Backplates shall come equipped with all necessary mounting hardware.

C. *Mounting Equipment & Hardware*

1. All hardware provided in this section shall be stainless steel unless approved by the County.
2. Side mount and post mount shall include a terminal compartment with necessary terminal block for wiring connections. Wiring shall be provided from the terminal block through the framework coiled up with enough slack to make the necessary connection in the signal head.
3. The terminal compartment shall be constructed of iron with a saddle back, guided cable entrance, and mounting holes provided.
4. The Clamshell style pedestrian mounting hardware shall be equipped with a terminal block with a minimum of five (5) positions.
5. All Span signal mounting hardware shall be powder coated bronze of iron with stainless steel hardware.



6. Mast Arm Mounts shall utilize stainless steel cable to secure to the mast arm. The mount shall also have all-axis adjustability and a hinged clamping mechanism to attach the mount to the gusset tube of the head assembly or camera mount. All hardware shall be stainless steel.

## VII. PEDESTRIAN DETECTION EQUIPMENT

### A. *General*

This section contains equipment meant for the purpose of detecting pedestrians at signalized intersections as well as conveying a clear guidance as they navigate the signalized intersections of the County.

### B. *APS systems*

1. Equipment in this section shall be compatible with "Intelligent Configuration Utility" the current APS management system being utilized by Arlington County.
2. All APS units shall come equipped to adapt to and include retroreflective 9x15 R10-3e pedestrian push button guidance sign.
3. APS units shall have contactless capabilities in detecting pedestrians
4. All APS units shall connect to the traffic signal cabinet via a central control unit in the cabinet.

### C. *Mechanical Pedestrian Detection Systems*

1. Mechanical pedestrian pushbuttons shall have a momentary pilot light on the button housing to visually indicate that the button has been activated.
2. Mechanical buttons shall emit an audible two (2) tone to indicate that the button has been activated.
3. Mechanical buttons shall contain a Piezo-driven solid-state switch.
4. Mechanical button housings shall have an integrated sign mount to accommodate a 9"x15" pedestrian guidance sign.
5. Mechanical button housings shall come equipped to adapt to and include the 9"x15" R10-3e retroreflective pedestrian push button guidance sign.

### D. *Technical Support*

1. Technical support shall include onsite wiring, testing, and troubleshooting as well as conference calls or training.
2. Technical support shall be measured and paid for in hours.

## VIII. BEACONS AND ROADSIDE INDICATORS

### A. *General*

1. This section contains alternative signalization and warning devices used in traffic control such as school zone warning beacons, speed indicator signs, and pedestrian flashing beacons. These devices operate independent of the signal system and require provisions for power and communications as described in the following sections.

2. Assemblies shall be supplied with all the parts listed with applicable warranties provided.

B. *School Beacons*

1. A typical solar-powered school beacon assembly includes a 15-foot schedule 80 pedestal pole (with base, anchor bolts, and collar), signal heads with hardware, control cabinet with solar array and batteries, two (2) 12VDC LED signals, and wiring harness.
2. A typical AC-powered school beacon assembly includes a 15-foot schedule 80 pedestal pole (with base, anchor bolts, collar, and pole cap), signal heads with hardware and 120VAC LEDs, and a control cabinet.
3. Solar arrays shall be designed to accommodate the equipment used in the solar assembly (including the remote monitoring device) using a typical energy balance worksheet.
4. Remote monitoring field device shall be Applied Information (AI) AI-0500-070 or approved equal.

C. *Roadside Speed Indicators*

1. A roadside speed indicator solar assembly includes the following: LED speed indicator having a standard sign with "YOUR SPEED" message, cabinet with 120V power, wiring harness, solar array with batteries, a pedestal pole and AI remote monitoring field device (model AI-0500-070 or approved equal).
2. Solar Panel System
  - a) The cable used to connect the solar panel to the control cabinet must be at least 15 feet
  - b) Solar arrays shall be designed to accommodate the equipment used in the solar assembly (including the remote monitoring device) using a typical energy balance worksheet.

D. *Pedestrian Activated Rectangular Rapid Flash Beacon (RRFB)*

1. RRFB Assemblies shall include the following: Control Box, Smaller factor Applied Information remote monitoring field device (LPM 500-030), RRFB, ADA Pushbutton, Solar Engine (Comprised of Solar Panels and Batteries), and 15-foot pedestal pole.
2. ADA Pushbutton
  - a) ADA Pushbuttons shall be provided in accordance with Section 13168 of the Arlington County Traffic Signal Specifications.
3. Solar Panel System.
  - a) The cable used to connect the solar panel to the control cabinet must be at least 15 feet.
  - b) Solar arrays shall be designed to accommodate the equipment used in the solar assembly (including the remote monitoring device) using a typical energy balance worksheet.

IX. PEDESTAL POLES

A. *General*

1. This section contains the spun aluminum poles and bases required for the mounting of various traffic control devices.
2. Pedestal pole lengths do not include the height of the base.

B. *Aluminum Pedestal Poles*

1. Pedestal Poles shall include the base, pole cap, collar, and cover plate as well as all screws and hardware necessary for assembly of the pole and base.

X. BLANK-OUT LED SIGNS

A. *General*

1. This section includes items for various blank-out applications. The sizes referred to in the line items refers to the display area (not the size of the sign).
2. Generally, LED color shall be monochrome unless specified in the line item or as specified in the MUTCD for the regulatory messages such as R3-2.

B. *Custom LED Signs*

1. Custom LED signs shall be designed at the time of order and may range from single regulatory configuration to up to two (2) configurations.
2. The custom LED sign may contain up to 70 percent active LED surface area.
3. The Contractor shall provide a sign with multiple colors (up to two (2)) if requested by the County.

XI. BLUETOOTH TRAVEL TIME DATA COLLECTION EQUIPMENT

A. *General*

This section includes the equipment used for the County's Bluetooth travel time system. The parts and equipment in this section must be compatible with the County's current Iteris Velocity System (IVS).

B. *Point to Point Data Relay Device Assembly (Low frequency)*

1. The Contractor shall supply a communication device for relaying data from isolated collection units to intersection cabinets.
2. The device frequency shall be a range of 700 to 900 MHz
3. The communication unit must be compatible with the County's existing communications infrastructure and connect with ethernet.
4. The unit must be rugged, weatherproof, and approved for outdoor use with a five-year warranty.
5. The assembly shall include surge protection for device, mounting bracket, POE injector, and antenna with bracket.

C. *Point to Point Data Relay Device Assembly (high frequency)*

1. The Contractor shall supply a communication device for relaying data from isolated collection units to intersection cabinets.
2. The device frequency shall be a range of 2.4 to 5.8 GHz.
3. The communication unit must be compatible with the County's existing communications infrastructure and connect with ethernet.
4. The unit must be rugged, weatherproof, and approved for outdoor use with a five-year warranty.
5. The assembly shall include surge protection for device, mounting bracket, POE injector, and antenna with bracket.

## EXHIBIT B

PRICING SHEET					
		Est. Qty.	Unit	Unit Price	Price
<b>SECTION I - Testing Services &amp; Equipment</b>					
<b>Test Equipment</b>					
1	Cabinet Test Display	10	EA	\$ 740.00	\$ 7,400.00
2	Handheld Loop Test Kit	5	EA	\$ 3,200.00	\$ 16,000.00
3	BIU Tester with Carrying Case	2	EA	\$ 6,200.00	\$ 12,400.00
4	Tester Carrying Case	2	EA	\$ 300.00	\$ 600.00
5	Virtual Test Cabinet	5	EA	\$ 3,300.00	\$ 16,500.00
<b>Testing Services</b>					
6	Re-certification of Conflict Monitor Tester	2	EA	\$ 805.00	\$ 1,610.00
7	Re-certification of High-Density Switch Pack Tester	2	EA	\$ 515.00	\$ 1,030.00
8	Re-certification of BIU Tester	1	EA	\$ 485.00	\$ 485.00
<b>Support Services</b>					
9	Technical Support	30	HR	\$ 125.00	\$ 3,750.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$59,775.00</b>
<b>SECTION II - Cabinet Components and Replacement Parts</b>					
1	Shelf Mount TS-2 Power Supply	50	EA	\$ 570.00	\$ 28,500.00
2	Din Rail Mount Power Supply	100	EA	\$ 725.00	\$ 72,500.00
3	EDI BIU 700	100	EA	\$ 340.00	\$ 34,000.00
4	16 Channel TS2 Smart MMU with ethernet	10	EA	\$ 1,155.00	\$ 11,550.00
5	6 Channel TS1 Conflict Monitor with ethernet	10	EA	\$ 1,040.00	\$ 10,400.00
6	3 Channel TS1 Conflict Monitor	10	EA	\$ 730.00	\$ 7,300.00
7	MMU Program Card	100	EA	\$ 80.00	\$ 8,000.00
8	MMU Program Card with dip switches for testing purposes	20	EA	\$ 260.00	\$ 5,200.00
9	Load Switch I/O style	100	EA	\$ 32.00	\$ 3,200.00
10	Flash Transfer Relay with power LED	100	EA	\$ 30.00	\$ 3,000.00
11	Flasher	100	EA	\$ 40.00	\$ 4,000.00
12	Loop Surge Suppressor	50	EA	\$ 15.00	\$ 750.00
13	INXT120NL000-1 Line Filter	50	EA	\$ 45.00	\$ 2,250.00
14	LF60X Line Filter	50	EA	\$ 35.00	\$ 1,750.00
15	LF60 Line Filter	50	EA	\$ 48.00	\$ 2,400.00
16	HE1750 Surge Suppressor (with socket)	50	EA	\$ 160.00	\$ 8,000.00
17	HE1750 Surge Suppressor (without socket)	50	EA	\$ 120.00	\$ 6,000.00
18	ACP-340 Surge Suppressor	50	EA	\$ 80.00	\$ 4,000.00
19	SHP300-10 Surge Suppressor	50	EA	\$ 43.00	\$ 2,150.00
20	Solid State Load Relay	50	EA	\$ 58.00	\$ 2,900.00
21	16-Channel Detector Rack (Includes 2 additional slots for preemption)	50	EA	\$ 155.00	\$ 7,750.00

		<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Price</b>
22	Cabinet Drawer Shelf	50	EA	\$ 180.00	\$ 9,000.00
23	Power Strip for Top Cabinet Shelf 40" with 10' cord	50	EA	\$ 115.00	\$ 5,750.00
24	Cabinet Handle with Integrated Lock	5	EA	\$ 550.00	\$ 2,750.00
25	Power Strip for Top Cabinet Shelf 30" with 6' cord	50	EA	\$ 115.00	\$ 5,750.00
26	Generator Plug	50	EA	\$ 70.00	\$ 3,500.00
27	Police Switch (RJ45)	50	EA	\$ 80.00	\$ 4,000.00
28	Plexiglass Power Panel Cover A	50	EA	\$ 50.00	\$ 2,500.00
29	Plexiglass Power Panel Cover B	50	EA	\$ 50.00	\$ 2,500.00
30	Plexiglass Power Panel Cover C	50	EA	\$ 50.00	\$ 2,500.00
31	Plexiglass Power Panel Cover D	50	EA	\$ 50.00	\$ 2,500.00
32	8 Position SDLC Hub	25	EA	\$ 112.00	\$ 2,800.00
33	6' SDLC Cable (Clips on both ends)	100	EA	\$ 70.00	\$ 7,000.00
34	6' SDLC Cable (Clips on one end screws on opposite end)	100	EA	\$ 70.00	\$ 7,000.00
35	Pack of 50 Cabinet Spring Nuts	20	EA	\$ 130.00	\$ 2,600.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$285,750.00</b>
<b>SECTION VI - Traffic Signals and Mounting Equipment</b>					
<b>Signals</b>					
1	3-Section Red-Yellow-Green Signal (incl. housing and LED modules)	50	EA	\$ 575.00	\$ 28,750.00
2	4-Section Flashing Yellow Arrow Signal (incl. housing and LED modules)	50	EA	\$ 750.00	\$ 37,500.00
3	HAWK Signal (incl. housing and LED modules)	20	EA	\$ 1,060.00	\$ 21,200.00
4	3 Section Programmable Visibility Signal (includes housing, LED's, and lenses)	5	EA	\$ 3,500.00	\$ 17,500.00
5	5-Section (Doghouse/Cluster Style) Signal (incl. housing, hardware, and LED modules)	10	EA	\$ 1,200.00	\$ 12,000.00
6	5 Section Inline Signal head. (incl. housing and LED modules)	10	EA	\$ 925.00	\$ 9,250.00
7	Aeroflex High Visibility Backplate for 3-Section head	200	EA	\$ 162.00	\$ 32,400.00
8	Aeroflex High Visibility Backplate for 4-Section head	100	EA	\$ 183.00	\$ 18,300.00
9	Aeroflex High Visibility Backplate for 5-Section head	100	EA	\$ 190.00	\$ 19,000.00
10	12" LED Red Signal module	400	EA	\$ 65.00	\$ 26,000.00
11	12" LED Yellow Signal module ( <i>Energy Efficient</i> )	400	EA	\$ 65.00	\$ 26,000.00
12	12" LED Green Signal module ( <i>Energy Efficient</i> )	400	EA	\$ 65.00	\$ 26,000.00
13	12" LED Red Arrow Signal module ( <i>Energy Efficient</i> )	150	EA	\$ 65.00	\$ 9,750.00
14	12" LED Yellow Arrow Signal module ( <i>Energy Efficient</i> )	150	EA	\$ 65.00	\$ 9,750.00

		<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Price</b>
15	12" LED Green Arrow Signal module (Energy Efficient)	150	EA	\$ 65.00	\$ 9,750.00
16	12" LED Transit Stop Signal module (Energy Efficient)	150	EA	\$ 65.00	\$ 9,750.00
17	12" LED Transit Yellow Arrow Signal module (Energy Efficient)	150	EA	\$ 65.00	\$ 9,750.00
18	12" LED Green Arrow Signal module (Energy Efficient)	150	EA	\$ 65.00	\$ 9,750.00
19	8" LED Red Signal module (Energy Efficient)	25	EA	\$ 50.00	\$ 1,250.00
20	8" LED Yellow Signal module (Energy Efficient)	25	EA	\$ 50.00	\$ 1,250.00
21	8" LED Green Signal module (Energy Efficient)	25	EA	\$ 50.00	\$ 1,250.00
22	Programmable visibility Red LED module (Energy Efficient)	20	EA	\$ 95.00	\$ 1,900.00
23	Programmable visibility Yellow LED module (Energy Efficient)	20	EA	\$ 95.00	\$ 1,900.00
24	Programmable visibility Green LED module (Energy Efficient)	20	EA	\$ 95.00	\$ 1,900.00
25	3 bolt head connector set	100	EA	\$ 15.00	\$ 1,500.00
26	5 Position Terminal Bar	100	EA	\$ 25.00	\$ 2,500.00
27	Signal Visor	50	EA	\$ 20.00	\$ 1,000.00
28	Louvers with visor	50	EA	\$ 200.00	\$ 10,000.00
29	Backplate Screws (Pack of 25)	25	Pack	\$ 15.00	\$ 375.00
30	Tunnel Visor Screws (pack of 25)	25	Pack	\$ 15.00	\$ 375.00
31	Pedestrian Signal (including countdown LED Module)	100	EA	\$ 450.00	\$ 45,000.00
32	Pedestrian Signal with clamshell mount (including countdown LED Module)	100	EA	\$ 460.00	\$ 46,000.00
33	Ped Head Egg Crate Visor	100	EA	\$ 22.00	\$ 2,200.00
34	16" Pedestrian LED module (Countdown)	100	EA	\$ 190.00	\$ 19,000.00
35	Audible Pedestrian Cuckoo Signal (US Traffic APS10 or Equal)	10	EA	\$ 430.00	\$ 4,300.00
36	Programmable Visibility Signal Masking Kit	10	EA	\$ 300.00	\$ 3,000.00
	<b>SUB-TOTAL</b>				<b>\$477,100.00</b>
<b>Mounting Equipment</b>					
37	Spanwire Signal Mounting Hardware	50	EA	\$ 127.00	\$ 6,350.00
38	Mast Arm Mount for 3-Section Signal Head	100	EA	\$ 250.00	\$ 25,000.00
39	Mast Arm Mount for 4-Section Signal Head	50	EA	\$ 270.00	\$ 13,500.00
40	Mast Arm Mount for HAWK Signal Head	50	EA	\$ 370.00	\$ 18,500.00
41	Mast Arm Mount for 5-Section Doghouse/Cluster Signal Head	50	EA	\$ 375.00	\$ 18,750.00
42	One-Way Vehicle Signal Mount (Post Mount with Terminal Compartment)	50	EA	\$ 250.00	\$ 12,500.00
43	One-Way Vehicle Signal Mount (Post Mount without Terminal Compartment)	50	EA	\$ 220.00	\$ 11,000.00

		<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Price</b>
44	Two-Way Vehicle Signal Mount (Side Mount with Terminal Compartment)	50	EA	\$ 333.00	\$ 16,650.00
45	Two-Way Vehicle Signal Mount (Side Mount without Terminal Compartment)	50	EA	\$ 265.00	\$ 13,250.00
46	One-Way Pedestrian Signal Mount (Post Mount with terminal compartment)	50	EA	\$ 220.00	\$ 11,000.00
47	Two-Way Pedestrian Signal Mount (Post Mount with terminal compartment)	50	EA	\$ 400.00	\$ 20,000.00
48	One-Way Pedestrian Signal Mount (Post Mount without terminal compartment)	50	EA	\$ 70.00	\$ 3,500.00
49	Two-Way Pedestrian Signal Mount (Post Mount without terminal compartment)	50	EA	\$ 240.00	\$ 12,000.00
50	One-Way Pedestrian Signal Mount (Side Mount with terminal compartment)	150	EA	\$ 225.00	\$ 33,750.00
51	Two-Way Pedestrian Signal Mount (Side Mount with terminal compartment)	150	EA	\$ 380.00	\$ 57,000.00
52	One-Way Pedestrian Signal Mount (Side Mount without terminal compartment)	50	EA	\$ 120.00	\$ 6,000.00
53	Two-Way Pedestrian Signal Mount (Side Mount without terminal compartment)	50	EA	\$ 225.00	\$ 11,250.00
54	Post Top Slip Fitter Assembly, 1-way w/2 side ports	50	EA	\$ 110.00	\$ 5,500.00
55	Post Top Signal Mounting Kit	50	EA	\$ 38.00	\$ 1,900.00
56	30" Paddle and Bracket for Sign Mounting	100	EA	\$ 155.00	\$ 15,500.00
57	36" Paddle and Bracket for Sign Mounting	100	EA	\$ 165.00	\$ 16,500.00
58	Band & Buckle Assembly (Black color)	100	EA	\$ 50.00	\$ 5,000.00
59	Span Wire 2" Cable Ring	3000	EA	\$ 40.00	\$ 120,000.00
60	Spanwire Sign Mounting Hardware	50	EA	\$ 100.00	\$ 5,000.00
61	LED Quick Change Kit (GGI QCK) (3-Section head kit containing 12 clips and screws)	300	EA	\$ 35.00	\$ 10,500.00
	<b>SUB-TOTAL</b>				<b>\$469,900.00</b>
<b>GRAND TOTAL FOR SECTION</b>					<b>\$947,000.00</b>
<b>SECTION VII - Pedestrian Pushbutton Systems</b>					
1	APS System (includes 8 APS units, CCU, interace board, SDLC cable, PLC cable, logic ground cable, and power cable)	40	EA	\$ 6,985.00	\$ 279,400.00
2	APS unit (includes 9"x15" R10-3e sign, adapter plate, and hardware.)	50	EA	\$ 555.00	\$ 27,750.00
3	Shelf mount CCU (includes SDLC cable, power cable, PLC cable, logic ground, and interface board)	20	EA	\$ 2,650.00	\$ 53,000.00
4	Rack Mount CCU (includes SDLC cable, power cable, PLC cable, logic ground, and interface board)	30	EA	\$ 2,540.00	\$ 76,200.00
5	Interface Board	25	EA	\$ 95.00	\$ 2,375.00
6	SDLC Cable with Ground	5	EA	\$ 105.00	\$ 525.00
7	PLC Cable	25	EA	\$ 27.00	\$ 675.00
8	CCU power cable	25	EA	\$ 30.00	\$ 750.00



9	9x15 adapter plate (includes hardware and R10-3e sign)	55	EA	\$ 130.00	\$ 7,150.00
		<b>Est. Qty.</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Price</b>
10	Logic Ground cable	20	EA	\$ 25.00	\$ 500.00
11	Adapter for two APS with 9x15 sign on 4.5 OD pole	5	EA	\$ 115.00	\$ 575.00
12	Fluted pole Monting Adapter	25	EA	\$ 85.00	\$ 2,125.00
13	APS Mounting Extender (Black)	20	EA	\$ 180.00	\$ 3,600.00
14	APS height reducing mounting extender (Black)	20	EA	\$ 225.00	\$ 4,500.00
15	Bi-directional Button Assembly	20	EA	\$ 46.00	\$ 920.00
16	Non-Arrow Button Assembly	20	EA	\$ 46.00	\$ 920.00
17	APS Replacement Speaker	20	EA	\$ 42.00	\$ 840.00
18	Universal 90-degree adapter for APS (Black)	50	EA	\$ 200.00	\$ 10,000.00
19	Mechanical Button	100	EA	\$ 105.00	\$ 10,500.00
20	Mechanical Button Mounting plate (includes 9x15 R10-3e sign and hardware)	100	EA	\$ 130.00	\$ 13,000.00
21	Technical Support	10	HR	\$ 125.00	\$ 1,250.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$496,555.00</b>
<b>SECTION VIII - Beacons and Roadside Indicators</b>					
<b>School Beacons</b>					
1	School Flasher Assembly (AC Power)	5	EA	\$ 7,400.00	\$ 37,000.00
2	School Flasher Assembly (Solar Power)	10	EA	\$ 7,950.00	\$ 79,500.00
3	Remote Monitoring Field Device (Includes 5-years communications)	15	EA	\$ 2,500.00	\$ 37,500.00
4	Replacement Solar Panel (Includes mounting hardware)	15	EA	\$ 260.00	\$ 3,900.00
5	Replacement Battery	20	EA	\$ 350.00	\$ 7,000.00
6	Replacement Control Box (Includes mounting hardware)	10	EA	\$ 2,200.00	\$ 22,000.00
7	Replacement Single 12" LED Signal Housing (12V DC)	15	EA	\$ 220.00	\$ 3,300.00
	<b>SUB-TOTAL</b>				<b>\$190,200.00</b>
<b>Speed Feedback Indicators</b>					
8	Speed Feedback Assembly (Solar Power) (AI included)	8	EA	\$ 10,525.00	\$ 84,200.00
9	Speed Feedback Assembly (AC Power) (AI included)	4	EA	\$ 9,475.00	\$ 37,900.00
10	Replacement Solar Panel (Includes mounting hardware)	10	EA	\$ 370.00	\$ 3,700.00
11	Replacement Battery	10	EA	\$ 250.00	\$ 3,500.00
12	Replacement Control Box (Includes mounting hardware)	5	EA	\$ 2,730.00	\$ 13,650.00
13	Replacement Speed Radar Blank-out Assembly	5	EA	\$ 3,850.00	\$ 19,250.00
	<b>SUB-TOTAL</b>				<b>\$162,200.00</b>

		Qty	Unit	Unit Price	Price
<b>Pedestrian Activated Rapid Flash Beacons (RRFB)</b>					
14	Rapid Flash Beacon Assembly (AC Power, Double Sided) AI Include	10	EA	\$ 7,050.00	\$ 70,500.00
15	Rapid Flash Beacon Assembly (Solar Power, Double Sided) AI Included	10	EA	\$ 7,600.00	\$ 76,000.00
16	Smaller Factor Remote Monitoring Field Device (Includes 5-years communications)	5	EA	\$ 1,100.00	\$ 5,500.00
17	Replacement Solar Panel (Includes mounting hardware)	10	EA	\$ 285.00	\$ 2,850.00
18	Replacement Battery	15	EA	\$ 350.00	\$ 5,250.00
19	Replacement Control Box (Includes mounting hardware)	10	EA	\$ 2,350.00	\$ 23,500.00
20	Replacement Rectangular Rapid Flasher	15	EA	\$ 770.00	\$ 11,550.00
21	ADA Pushbutton	15	EA	\$ 695.00	\$ 10,425.00
<b>Technical Support</b>					
22	Technical Support	30	HR	\$ 125.00	\$ 3,750.00
<b>SUB-TOTAL</b>					<b>\$209,325.00</b>
<b>GRAND TOTAL FOR SECTION</b>					<b>\$561,725.00</b>
<b>SECTION IX - Pedestal Poles</b>					
<b>Aluminum Pedestal Poles</b>					
1	11' Pedestal Pole	20	EA	\$ 975.00	\$ 19,500.00
2	15' Pedestal Pole (Schedule 80)	75	EA	\$ 1,150.00	\$ 86,250.00
<b>Replacement Parts</b>					
3	Pelco Pole Base	50	EA	\$ 240.00	\$ 12,000.00
4	4"Pole Cap	50	EA	\$ 30.00	\$ 1,500.00
5	Base Collar	50	EA	\$ 105.00	\$ 5,250.00
6	Pole Base Coverplate (composite plastic)	100	EA	\$ 45.00	\$ 4,500.00
7	Universal Signal pole Hand hole cover (Small)	100	EA	\$ 45.00	\$ 4,500.00
8	Universal signal pole Hand hole cover (Large)	100	EA	\$ 50.00	\$ 5,000.00
9	Replacement signal pole cap for pole outer Diameter 6"-7"	50	EA	\$ 51.00	\$ 2,550.00
10	Replacement signal pole cap for pole outer Diameter 7"-8"	100	EA	\$ 53.00	\$ 5,300.00
11	Replacement signal pole cap for pole outer Diameter 8"-9"	100	EA	\$ 55.00	\$ 5,500.00
12	Replacement signal pole cap for pole outer Diameter 9"-10"	100	EA	\$ 57.00	\$ 5,700.00
13	Replacement signal pole cap for pole outer Diameter 10"-11"	50	EA	\$ 123.00	\$ 6,150.00
14	Replacement signal pole cap for pole outer Diameter 11"-12"	25	EA	\$ 135.00	\$ 3,375.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$167,075.00</b>

		Qty	Unit	Unit Price	Price
<b>SECTION X - Blank-out LED Sign</b>					
1	36" x 36" R3-1 or R3-2 LED Blank Out Sign	10	EA	\$ 3,500.00	\$ 35,000.00
2	30" x 36" BUS LANE ONLY LED Blank Out Sign	10	EA	\$ 3,450.00	\$ 34,500.00
3	30" x 30" Lane Control LED Sign (Red 'X'/Green Arrow)	10	EA	\$ 3,650.00	\$ 36,500.00
4	36" x 36" Custom LED Sign	10	EA	\$ 6,600.00	\$ 66,000.00
5	30" x 36" Custom LED Sign	10	EA	\$ 5,900.00	\$ 59,000.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$231,000.00</b>
<b>SECTION XI - Bluetooth Travel Time Data Collection Equipment</b>					
1	Bluetooth Antenna	15	EA	\$ 125.00	\$ 1,875.00
2	Bluetooth USB Adapter	15	EA	\$ 70.00	\$ 1,050.00
3	Bluetooth Wireless Modem	10	EA	\$ 1,900.00	\$ 19,000.00
4	Rack mounted Iteris Velocity Bluetooth Data Collection Unit	15	EA	\$ 3,900.00	\$ 58,500.00
5	Point to Point Data Relay (low frequency)	2	EA	\$ 2,600.00	\$ 5,200.00
6	Point to Point Data Relay (high frequency)	2	EA	\$ 2,400.00	\$ 4,800.00
<b>Technical Support</b>					
7	Technical Support	300	HR	\$ 125.00	\$ 37,500.00
<b>GRAND TOTAL FOR SECTION</b>					<b>\$127,925.00</b>
<b>GRAND TOTAL</b>					<b>\$2,876,805.00</b>