

Purchasing Services
2725 Judge Fran Jamieson Way, Suite C303
Viera, FL 32940

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NOTICE OF AWARD
DATE: July 24, 2015
BID# B-4-15-65/ Traffic Operations Fiber Optics Construction, Rehab,
Maintenance and Emergency Repairs

PROCUREMENT ANALYST: Jonathan McLester, CPPO, CPPB

<u>VENDOR</u>	<u>MEETS MINIMUM REQUIREMENTS</u>	<u>ITEMS AWARDED</u>	<u>Vendor City and State</u>	<u>EST ANNUAL VALUE</u>
Advanced Cabling Solutions	YES	Primary - Construction, Rehab, Maint. & Repair Secondary - Emergency Repairs	Fern Park, FL	Estimated \$65,000 yearly based on previous contract expenditures.
Precision Contracting Services	YES	Secondary - Construction, Rehab, Maint. & Repair Primary - Emergency Repairs	Jupiter, FL	See attached tabulation for sample projects used to determine award.

☐ BOARD AWARD--AGENDA ATTACHED

☒ APPROVED AWARD (NON-BOARD AGENDA): *Teresa Camarata*
(Per Sections III.E. & III.I. & J., BCC-25, PROCUREMENT) Teresa Camarata, Central Services Director

☐ Award to Overall Lowest, most Responsive, minimum three bids received.

☐ Award to other than low, with low bid being non-responsive: (copy to Manager)
REASON FOR NON-RESPONSIVENESS:

☒ Award to low bid, less than three responses received: (copy to Manager)

REASON FOR LESS THAN THREE RESPONSES:

114 vendors were notified through OnVia DemandStar, resulting in 21 plan-holders and only two (2) responsive bids. No feedback was provided by vendors indicating why they were not interested in bidding.

AWARDED BY A COMMITTEE CONSISTING OF: Leslie Rothering, Purchasing Manager; Jon McLester, Purchasing Supervisor; and Alton Robinson, Public Works.

FOR PURCHASING USE ONLY:

☐ ONE TIME PURCHASE

☒ ANNUAL BID:
EFFECTIVE DATE July 21, 2015 ENDING DATE July 20, 2018
RENEWAL OPTION ☐ One year ☒ Other (fill in) Two (2), One (1) year renewals
☐ Prompt Payment Discount Offered ☐ Yes (Terms) ☒ NO
☐ Performance and payment bonds received with construction contract documents.
☐ Release Cashier's Or Certified Check Received For Bid Deposit On Bids

SPECIAL INSTRUCTIONS TO AWARDED VENDOR:

☒ Please provide certificate of insurance.
☒ Please provide performance and payment bonds as required.
☐ OTHER:

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REVISED BID TABULATION SHEET

Bid Title: Traffic Operations Fiber Optics Construction, Rehabilitation, Maintenance and Emergency Repair Bid No: B-4-15-65 OPENING DATE & TIME: April 16, 2015 at 2:00 p.m. POSTING TIME/DATE: 5/07/15 @ 3:30 p.m. THROUGH: 5/14/15 @ 5:00 p.m. POSTED BY: JLM					
VENDOR	Vendor City/State	Exhibit B Sample Project 1	Exhibit B Sample Project 2	Total Exhibit B Sample Projects	Exhibit C Sample Project
Advanced Cabling Solutions	Fern Park, FL	\$15,290.42	\$12,101.98	\$27,392.40	\$102,587.04
Precision Contracting	Jupiter, FL	\$20,949.30	\$26,215.00	\$47,164.30	\$91,646.05

Award: Exhibit B: Primary - Advanced Cabling Solutions; Secondary - Precision Contracting
 Exhibit C: Primary - Precision Contracting; Secondary - Advanced Cabling Solutions

Brevard County encourages prompt and fair handling of all complaints and disputes with the business community. Filing of any disputes and appeals shall be in accordance with procedures specified in bid documents.

Approval initials 

AGREEMENT

THIS AGREEMENT, entered into this 21st day of July, 2015 by and between the Board of County Commissioners of Brevard County, Florida, a political subdivision of the State of Florida, hereinafter referred to as "County" and, Advanced Cabling Solutions, Inc., a business having its principal address at 201 Reece Way Suite 1431, Casselberry, FL 32707, hereinafter referred to as "Contractor".

W I T N E S S E T H :

That in consideration of the mutual covenants contained herein, it is hereby agreed between the parties as follows:

I GENERAL TERMS AND CONDITIONS

1. DEFINITIONS

The following definitions are applicable throughout the agreement.

- a. **County:** The terms "County" and "the County" shall refer to Brevard County, Board of County Commissioners' assigned personnel, or their representatives.
- b. **Contractor:** "Contractor" shall mean an individual, firm, partnership, or corporation, and his, their or its heirs, executors, administrators, successors and assigns or the lawful agent of any such individual, firm, partnership, covenanter or corporation, or his, their or its surety under any contract bond, constituting one of

the principals to the Contract and undertaking to perform the work specified in the design plans and specifications. Where any pronoun is used as a referring to the word "Contractor", it shall mean the Contractor as defined herein.

- c. **Agreement/Contract:** The terms "agreement" and "contract" are used interchangeably throughout this document, which, along with any referenced attachments or specifications, constitutes the entire agreement among the referenced parties.
- d. **Director:** The Brevard County Traffic Operations Program Manager or his/her designee. The Manager will designate the Intelligent Transportation Systems (ITS) personnel point of contact for maintenance, new construction and rehabilitation.
- e. **Maintenance:** Activity required to continue operations or to provide minor modifications to existing traffic Operations ITS capabilities of the fiber optic infrastructure and Network of interconnections. Maintenance includes planned and emergency activities.
- f. **Construction:** Any new fiber optic related work resulting with the installation of new fiber optic cabling, conduit, fiber vaults and including materials and equipment.
- g. **Rehabilitation:** Major upgrade or replacement of existing fiber optic infrastructure and/or systems.

2. UNAUTHORIZED ALIEN WORKERS

Brevard County will not intentionally award publicly-funded contracts to any contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324a(e) (Section 274A(e) of the Immigration and Nationality Act "INA"). The County shall consider the employment by the contractor of unauthorized aliens a violation of Section 274A(e) of the INA. Such violation by the Recipient of the employment provisions contained in Section 274A(e) of the INA shall be grounds for unilateral cancellation of this Agreement by the County. The County expressly requires the contractor and subcontractors performing work or providing services pursuant to this contract utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor and subcontractors during the contract term.

3. PUBLIC ENTITY CRIMES

The Contractor must provide a fully executed Public Entity Crimes Affidavit in accordance with F.S. 287.133(3)(a) within ten (10) days of the date of this Agreement and prior to commencing any work under this Agreement.

4. SCOPE OF WORK

a. Basic Contract

The Contractor as the primary contractor shall be available on the request of the County to provide

maintenance (including emergency maintenance), rehabilitation, and new construction relating to the Fiber Optic Network and Equipment. Such work shall include maintenance, emergency maintenance, rehabilitation, and new construction for items related to Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation & Maintenance. The Fiber Optic Network and Equipment includes, but is not limited to:

- Perform aerial installation of fiber optic cable, span wire and necessary hardware
- Perform underground installation of fiber optic cable and/or tracer wire
- Perform down guy installation.
- Place delineator markers
- Direct other Fiber Optic Cable Installer.
- Install pullboxes and conduit
- Ability to read and comprehend plans
- Perform weekly equipment inspections
- Complete daily reports as required

b. Knowledge, Abilities, and Skills

Proficiency in applying best practices for industry regulations, rules while following state/local ordinances and Building Industry Consulting Service International (BICSI) structured cabling standards. Proficient with proper aerial and underground

installation of communication networks as detailed above while applying safety practices applicable.

c. Natural Disasters

The Contractor as the secondary contractor shall be available on the request of the County to provide services related to Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Project, in the event the primary contractor is unresponsive or unable to provide all the necessary services as required. This contract is to provide the County with a means of restoring to an operational condition existing fiber optics and ITS communications systems damaged during any widespread disaster the County may endure, in accordance with the Local Agency Contracting Requirements for the FHWA Emergency Relief Program, Exhibit E, FHWA-1273. The scope of services for this project includes providing labor, equipment, and materials to repair any damaged fiber or span-wire and/or pole or underground conduit, provide emergency power and restore ITS Network communications. All work performed under this contract shall be in accordance with the latest version of the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions, Exhibit A attached hereto and incorporated herein and shall be FDOT approved when applicable. In the event of conflicting specifications,

the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions shall govern. Payments shall be in accordance with the Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair.

d. **FHWA/FEDERAL AID ELIGIBLE PROJECTS**

This contract is to provide the County with a means to perform work on projects that are eligible for FHWA/Federal Aid, in accordance with the Local Agency Contracting Requirements for the FHWA Emergency Relief Program, Exhibit E, FHWA-1273. The scope of services for this work includes providing labor, equipment and materials to construct the proposed improvements. All work performed under this contract shall be in accordance with the latest version of the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions, and shall be FDOT approved when applicable. Additionally, equipment shall adhere to Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions. In the event of conflicting specifications, the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions shall govern. Payments shall be in accordance with Exhibit C,

Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair respectively attached hereto and incorporated herein.

e. Performance Period

Because of the public safety implications, the response time is an essential element of the services for tasks included in this contract. The specific performance periods for various categories are listed below:

1. Network Outages

a) When contacted by the Brevard County Traffic Operations Manager or their representatives about a suspected fiber outage the Contractor shall have one (1) hour to respond by telephone or email with acknowledgement of notification of suspected outage and explain what steps will be taken to rectify the outage. Begin to prepare materials and equipment to perform all tests necessary to determine the location of the outage. This includes troubleshooting patch panels, patch cables, splice enclosures, splice trays, splices, sho-shoes, optics, terminations (pigtails or buffer tubes fan out kits), and any such items as it relates to the ITS Network. Once the cause of the outage is determined; the Contractor shall determine a fix and propose it to the Traffic Operations Manager or their representative.

b) Outages determined through troubleshooting by the Contractor or by Traffic Operation ITS personnel that result in more than one local hub to be out shall be repaired via Emergency Response. Upon notification or recognition of an outage requiring an Emergency Response the Contractor shall respond to the site with the required equipment to repair the facility within four (4) hours unless otherwise directed by the Traffic Operations Manager or their representative. The notification not to respond within the required four (4) hours must be received via email or phone. Once onsite, the contractor shall show continuous pursuit of effort to complete the repair. The Contractor shall take corrective actions to have the system fully operational before leaving the site. If the Contractor determines and the County agrees that this type of failure will require additional time and/or equipment, then the Contractor will provide an estimate of the man-hours and materials costs required to complete the work and gain approval of the Traffic Operations Manager or their representative prior to commencing any repairs.

c) Any materials and equipment furnished by the Contractor shall be equal to or better in quality than that being replaced and shall be approved by the

Traffic Operations Manager or their representative prior to purchase by the Contractor.

d) The County will make payment for services provided for Emergency Maintenance per work upon acceptance of the work and the invoice. The payment to the Contractor will reflect the actual hours and materials as documented by invoice and as approved by the County.

2. Preventive Maintenance

a) The Contractor shall provide complete documentation of the OTDR shots in a paper and electronic format. The electronic format shall include the software to view the OTDR shots.

Copies of all projects documentation shall be delivered to the Department, if requested in writing prior to the final payment to the Contractor by the County.

3. Special Projects

a) The Contractor will upon written authorization by the Traffic Operations Manager or their representative and upon mutual agreement as to equipment and time, perform any additional services not otherwise identified in this Scope, as may be required by the County in connection with this Contract at a negotiated Maximum limiting amount price based on pre-agreed man-hour rates, hours to complete the work and parts costs, solely at the County's discretion. The payment to the

Contractor will reflect the actual hours and materials as documented by the invoice and as approved by the Traffic Operations Manager or their representative.

5. TERM OF AGREEMENT

This agreement shall be for a term of three (3) years with two one-year renewal options.

6. REPRESENTATION OF CONTRACTOR

The Contractor must present sufficient evidence that it is a Florida Department of Transportation pre-qualified contractor and certified in the fields of fiber optics for ITS Level II Field or equivalent, and the Contractor must maintain the qualifications throughout the term of the contract.

7. PERFORMANCE STANDARDS

All materials and installations shall be in accordance with the latest versions and updates of the following technical specifications:

a. Florida Department of Transportation:

1. Standard Specifications for Road & Bridge Construction,
2. Design Standards for Design, Construction, Maintenance, and Utility Operations on the State Highway System.
3. Manual on Uniform Minimum Standards for Design, Construction and Maintenance of Streets and Highways.

b. Federal Highway Administration:

1. Manual on Uniform Traffic Control Devices.

c. Brevard County:

1. Intelligent Transportation Systems Specifications and Technical Special Provisions, June 22, 2015,
Exhibit A.
2. Supplemental Specifications for Traffic Signalization and Highway Lighting, March 26, 2015,
Exhibit A.
3. Signalization General Notes, January 16, 2015,
Exhibit A.

Any fiber related products utilized must be listed in the current FDOT "Approved Product List of FDOT Probationary ITS approved product list" if the device category exists.

In the event of conflicting specifications, the resolution shall be at the discretion of the Traffic Operations Manager. In those cases where the Brevard County specifications are more restrictive, the Brevard County specifications shall govern, except as may be otherwise determined by the Manager.

The County may, at its discretion, modify and/or exceed performance standards based on engineering judgment or maintenance considerations. In those cases where the County requests a performance level significantly in excess of the specifications, the Contractor shall be entitled to request compensation. Additional compensation must be requested by the

Contractor and approved by the Manager prior to commencing the work.

8. BOND

Before beginning any work under this contract, the contractor shall furnish a surety (performance) bond in the amount of fifty thousand dollars (\$50,000.00), which bond shall guarantee the faithful performance of any and all duties and materials or labor under this agreement.

9. LIQUIDATED DAMAGES - MAINTENANCE

Time of performance is critical to the County with regard to all scheduling of work provisions of this Agreement. As such, In the event of delay, liquidated damages may be assessed as follows:

Original Contract Amount	Daily Charge Per
<u>Per Project</u>	<u>Calendar Day</u>
\$50,000 and Under	\$2,000

The amount shall be automatically deducted from the contract price for every "day" (24 hours) that work is delayed past the date of completion specified on the work order. If the Contractor believes that any such delay has been caused by a circumstance beyond its reasonable control, Contractor must request, in writing, to the Traffic Operations Manager a Request for Waiver of the respective delay. Each such Request for Waiver must be received by the Traffic Operations Manager within forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay. Unless an extension of

time is granted for good cause by the Traffic Operations Manager, failure to submit such written Request for Waiver within the forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay shall bar the Contractor from claiming any waiver of that delay by any means whatsoever. The Traffic Operations Manager shall respond to the Request for Waiver in writing within five (5) working days of receipt of the Request for Waiver. Each decision of the County with regard to granting, denying, or partially granting or denying the Request for Waiver shall be final, but each such Request must be reviewed on its merits by the Traffic Operations Manager pursuant to the terms and conditions of this Agreement. Although no such Request will be unreasonably denied, the burden of persuasion rests with the Contractor. From time to time, usually not less than each thirty (30) days, and solely as a courtesy to the Contractor, the County may notify the Contractor of the then total sum of delay damages to be deducted from the contract price.

LIQUIDATED DAMAGES - EMERGENCY RESPONSE

Public safety is of the utmost importance during emergency replacement of signals destroyed by crashes or acts of God. As such, liquidated damages may be assessed after any four (4) hours that the Contractor fails to promptly commence work after having received a verbal Notice to Proceed in an emergency situation. After four (4) hours, the county reserves the right to procure the services of another contractor to restore the

intersection to a safe operation. As such, in the event of a delay, liquidated damages may be assessed as follows:

- \$5,000 + additional costs, in excess of current contract prices, the County incurs to bring the intersection back to safe operation.

Post commencement, the Contractor shall complete the emergency restorations within a reasonable period of time. If the Contractor believes that any such delay has been caused by a circumstance beyond its reasonable control, Contractor must request, in writing, to the Traffic Operations Manager a Request for Waiver of the respective delay. Each such Request for Waiver must be received by the Traffic Operations Manager within forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay. Unless an extension of time is granted for good cause by the Traffic Operations Manager, failure to submit such written Request for Waiver within the forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay shall bar the Contractor from claiming any waiver of that delay by any means whatsoever. The Traffic Operations Manager shall respond to the Request for Waiver in writing within five (5) working days of receipt of the Request for Waiver. Each decision of the County with regard to granting, denying, or partially granting or denying the Request for Waiver shall be final, but each such Request must be reviewed on its merits by the Traffic Operations Manager pursuant to the terms and conditions of this

Agreement. Although no such Request will be unreasonably denied, the burden of persuasion rests with the Contractor. From time to time, usually not less than each thirty (30) days, and solely as a courtesy to the Contractor, the County may notify the Contractor of the then total sum of delay damages to be deducted from the contract price. In such case, the Contractor shall be liable to the County for all reasonable additional costs occasioned to the County thereby. Liquidated damages will be deducted from any pending work orders which have not been paid.

10. INDEMNIFICATION

The Contractor agrees to indemnify and hold harmless the County and their employees from all claims, losses and expenses, including attorney's fees, arising out of or resulting from the performance of the products or services to be contracted, provided such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease, death or personal injury, or to property damage, including loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor or any of their employees, or arises from a work-related injury to any of the Contractor's employees, any subcontractor, or any of their employees. The Contractor acknowledges receipt of adequate consideration for this agreement.

11. INSURANCE REQUIREMENTS

The Contractor providing services under this Agreement will be required to procure and maintain, at their own expense and without cost to the County, until final acceptance by the County of all products or services covered by the purchase order or contract, the following types of insurance. The policy limits required are to be considered minimum amounts.

General Liability Insurance policy with a \$1,000,000 combined single limit for each occurrence to include the following coverage's: Operations, Products and Completed Operations, Personal Injury, Contractual Liability covering this contract, and "X-C-U" hazards.

Auto Liability Insurance which includes coverage for all owned, non-owned and rented vehicles with a \$1,000,000 combined single limit for each occurrence.

Workers' Compensation and Employers Liability Insurance covering all persons conducting the Contractor's operations on County premises or on behalf of the County in the full amount required by the State of Florida laws.

The Contractor shall provide certificates of insurance to the County demonstrating that the aforementioned insurance requirements have been met prior to the commencement of work under this contract. The General Liability and Auto Liability certificates of insurance shall indicate that the policies have been endorsed to cover the County as an additional insured and

that these policies may not be canceled or modified without thirty (30) days prior written notice to the County.

The insurance coverage's enumerated above constitute the minimum requirements and shall in no way lessen or limit the liability of the Contractor under the terms of the contract. Subcontractor's insurance shall be the responsibility of the Contractor.

12. ATTORNEY'S FEES

In the event of any legal action to enforce the terms of this contract, each party shall bear its own attorney's fees and costs.

13. VENUE

Venue for any legal action brought by any party to this agreement (for the purposes of this clause, this includes any city or municipality who is allowed to utilize the contractor's services under this agreement), to interpret, construe, or enforce this agreement shall be in a court of competent jurisdiction in and for Brevard County, Florida.

14. INDEPENDENT CONTRACTOR

The Contractor shall perform the conditions of this agreement as an independent contractor and nothing contained herein shall be construed to be inconsistent with this relationship or status. Nothing in this agreement shall be in any way construed to constitute the Contractor, or any of its

agents or employees, as an agent, employee or representative of the County.

15. DELEGATION OF WORK

The County reserves the right to ascertain the necessity for Contractor service and shall, at its sole discretion, determine the conditions warranting Contractor response.

16. TERMINATION

- a) The County may, by written notice to the Contractor terminate this agreement or any purchase order issued hereunder, in whole or in part, at any time, either for the County's convenience or because of the failure of the Contractor to fulfill its agreement obligations. Upon receipt of such notice, the Contractor shall immediately discontinue all services affected, unless the notice directs otherwise, and deliver to the County all data, drawings, specifications, reports, estimates, summaries and any and all such other information and materials of whatever type or nature as may have been accumulated by the contractor in performing this agreement, whether completed or in process.
- b) If the termination is for the convenience of the County, the Contractor shall be paid compensation for services performed to the date of termination.
- c) If the termination is due to the failure of the Contractor to fulfill its agreement obligations, the

County may take over the work and prosecute the same to completion by other agreements or otherwise. In such case, the Contractor shall be liable to the County for all reasonable additional costs occasioned to the County thereby. The Contractor shall not be liable for such additional costs if the failure to perform the Agreement arises without any fault or negligence of the Contractor; provided, however, that the Contractor shall be responsible and liable for the actions of its subcontractors, agents, employees and persons and entities of a similar type or nature. Such causes may include acts of God or of the public enemy, acts of County in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without any fault or negligence of the Contractor. If through any cause, the Contractor shall fail to fulfill its obligations under this agreement, or if the Contractor violates any of the covenants, agreements or stipulations of this agreement, the County shall have the right to terminate this agreement by giving written notice to the Contractor of such termination, specifying the effective date thereof, at least ten (10) days before the effective

date of such termination.

- d) If after notice of termination for failure to fulfill its Agreement obligations it is determined that Contractor had not so failed, the termination shall be conclusively deemed to have been effected for the convenience of the County. In such event, adjustment in the Agreement price shall be made as provided in subsection (b) of this section.
- e) The rights and remedies of the County provided for in this Section are in addition and supplemental to any and all other rights and remedies provided by law or under this Agreement.
- f) The County reserves the right to terminate the agreement, without cause, during the thirty (30) days preceding the anniversary date of the contract execution, the effective date being the anniversary date, or other mutually agreed upon date.

17. EVALUATION OF PERFORMANCE

If through any cause, the Contractor shall fail to fulfill its obligations under this agreement, or if the Contractor violates any of the covenants, agreements or stipulations of this agreement, the County shall have the right to specify remedial action, which may be used as a consideration with respect to extension or termination of this contract.

18. ASSIGNABILITY BY CONTRACTOR

This agreement is not assignable by the Contractor without the expressed prior written consent of the County.

19. ASSIGNABILITY BY COUNTY

Any public agency within Brevard County may contract with the County for services to be performed by the Contractor under the terms and conditions of this agreement.

20. NON-EXCLUSIVITY

The parties hereto specifically agree that this is a non-exclusive agreement and that the County may select other contractors to perform construction, rehabilitation and maintenance during the term of this agreement.

21. ENTIRE AGREEMENT

It is agreed that neither party has made any statement, promise or agreement, or taken upon itself any engagement whatsoever, verbally or in writing, in conflict with the terms of this agreement or that in any way modifies, varies, alters, enlarges or invalidates any provisions hereof.

22. SEVERABILITY

In the event a court of competent jurisdiction finds any sentence, provision, paragraph, or section of this agreement null and void, the remaining parts of this agreement shall continue in full force and effect as though such sentence, provision, paragraph or section has been omitted from this Agreement.

23. WAIVER

In the event the County waives any of the Contractor's obligations or duties in this Agreement, it shall not constitute a waiver of any of the other obligations and duties of the Contractor, nor shall waiver of any such obligation or duty constitute a continuing waiver of that obligation or duty.

24. COMPENSATION

Compensation for the base contract shall be in accordance with Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation and Maintenance. Compensation for the Natural Disaster portion of this contract shall be in accordance with all applicable FHWA Emergency Relief Program requirements and shall be billed in accordance with Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair.

Compensation schedules may be adjusted after the second year of the contract upon mutual consent of the parties.

Compensation shall be based on material cost variation or other relevant economic conditions, sufficiently documented by the requesting party. Either party may request a compensation adjustment. Failure to agree upon compensation adjustments shall constitute mutually agreed upon termination of this agreement.

25. WARRANTY

The Contractor shall warranty all work for a period of twelve (12) months for workmanship and shall extend to the

County the same warranty on all materials and equipment furnished under this agreement, which the manufacturer extends to the Contractor, or purchasers, whichever is greater.

26. CONTRACTOR'S RECORDS

The County and its auditors shall be entitled to audit the books and records of the Contractor to the extent that such books and records relate to the performance of this Agreement. The Contractor shall maintain such records and accounts, including property, personnel, financial records, as are deemed necessary by the County and its auditors to insure proper accounting for all funds expended under this Agreement. Said records shall be made available, upon request, for audit purposes to Brevard County and its auditors. Such books and records shall be maintained by the Contractor for a period of three (3) years from the date of final payment under this Agreement unless a shorter period is otherwise authorized in writing.

27. WORK SCHEDULES & MAINTENANCE OF TRAFFIC

The Contractor is responsible for maintaining safe traffic flow in accordance with Florida Department of Transportation Roadway and Traffic Design Standards 600 series, latest version, and any other applicable references. Failure to comply with this requirement will result in complete shutdown by the County Traffic Operations Manager with no additional compensation to the Contractor. Contractor shall schedule work to minimize impact on the peak traffic periods. Peak periods are defined as

7:00 to 9:00 AM and 4:00 to 6:00 PM Monday through Friday. No lane closures shall be permitted during the peak periods.

29. MAINTENANCE OF TRAFFIC (MOT)

The compensation for MOT shall be one percent (1%) of the total project amount for each work order. This item will be automatically added to each work order by the County and does not require a bid price by the contractor. This pay item is intended as lump sum compensation to the contractor for the maintenance of traffic set up in accordance with the dates FDOT and Brevard County requirements for the life of this project.

30. MOBILIZATION

The compensation for Mobilization shall be five percent (5%) of the total project amount for each work order. This item will be automatically added to each work order by the County and does not require a bid price by the contractor.

31. UTILITY COORDINATION

The Contractor is responsible for coordinating with all public and private utility companies, as may be necessary for proper and safe completion of the work.

32. SUBCONTRACTING

It is understood that the Contractor will be solely responsible for the assigned work. Any subcontractors must be previously approved by the Traffic Operations Program Manager.

II EMERGENCY RESPONSE MAINTENANCE

1. PERSONNEL REQUIREMENTS

The Contractor shall provide evidence of qualified personnel, including as a minimum, one (1) IMSA Certified Level II Traffic Signal Technician, with a minimum of two (2) years of experience in traffic signal maintenance. Only IMSA Certified Level II Traffic Signal Technicians or personnel under the direct supervision of an IMSA Level II Traffic Signal Technician shall perform work on any components within the traffic control cabinet.

The Contractor shall designate a maintenance supervisor to coordinate work with County staff. In the event of an emergency or an emergency event such as a pole knockdown or natural disaster, the contractor shall be capable of responding with a repair crew within four (4) hours.

2. EQUIPMENT AND STOCK

The Contractor shall maintain at least one (1) vehicle at all times capable of performing aerial traffic signal maintenance work above thirty-five feet (35').

The vehicle and its safety equipment shall be maintained in a safe working condition.

The County reserves the right to inspect the vehicle and equipment at any time with respect to compliance with the contract.

No compensation will be made for time lost due to lack of proper equipment and materials necessary to perform routine

maintenance. It shall be the Contractor's responsibility to ensure that proper equipment and materials are available at the job site.

The County reserves the right to supply new and/or reconditioned parts to the Contractor for installation, at the County's discretion.

In the event of a natural disaster, equipment and materials for restoration may become difficult to obtain, for this reason the County maintains an emergency replacement stock. Any material or equipment provided by the County and utilized by the Contractor will be returned in kind within six (6) months, or the County will order replacements and bill the Contractor at a rate of one and one-half ($1 \frac{1}{2}$) times the replacement cost. All materials provided by the County to the contractor shall be documented on an inventory transfer sheet, and the County will maintain the original copy, with a photocopy or facsimile provided to the Contractor for mutual record keeping. In the event the County does not have the necessary parts, the County will purchase the parts from the Contractor at the Contractor's cost plus the agreed-upon markup. In the event of an emergency pole knockdown, the Contractor must have the necessary equipment and materials to restore the traffic signal to a safe operation until permanent repairs can be made.

3. PROCEDURE

The Contractor shall not commence work until verbal authorization is received from County staff. In the event of a

natural disaster or an emergency pole knockdown, the Contractor shall photograph the damaged facilities prior to commencing with repairs and after completion of the repairs. These documentation photographs shall be submitted to the County with the billing invoices. The photographs shall be submitted as a JPEG digital image with embedded date stamps.

The Contractor shall submit invoices for maintenance work to the Brevard County Public Works Department, 2725 Judge Fran Jamieson Way, Suite A-201, Viera, Florida 32940.

Invoices will not be paid without proper supporting documentation, including necessary photographs in event of a natural disaster.

4. INSPECTION AND ACCEPTANCE

The County shall inspect all work upon completion and formally accept the work before compensation can occur. It shall be the Contractor's responsibility to schedule and hold preliminary and final acceptance meetings. Failure of the County staff to detect discrepancies, poor workmanship, or faulty materials shall in no way release the Contractor from responsibility for completion of the task and successful operation as required.

5. COMPENSATION

Compensation for maintenance shall be in accordance with Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation and Maintenance, attached hereto and incorporated herein. In the event work is required that is not covered by

the bid items (Exhibit B), the Contractor will be paid for labor on an hourly rate (Exhibit C) and shall submit a quote for any materials or equipment required, for approval before commencing work. Payment will be made to the nearest one-quarter hour, i.e. projects lasting 5 minutes will be paid for one-quarter hour; projects lasting 35 minutes will be paid for two quarter hours; projects lasting 50 minutes will be paid for one hour. The Contractor may charge the County for travel time to the work site, but shall not charge the County for return travel time.

Regular time work shall be work that was assigned to the Contractor between the hours of Contractor's operating hours, 8:00 a.m. through 5:00 p.m., Monday through Friday.

Overtime work shall be work that was assigned to the CONTRACTOR during those hours not defined as regular time.

Holidays may be charged at the overtime rate. Holidays are defined as those days officially designated as holidays by the Brevard County Board of County Commissioners.

Work that is initiated during regular time that is completed during overtime will be partially compensated at the regular time rate and the overtime rate, based upon the prorated share of work completed during overtime.

The Contractor will be compensated at the regular rate for work done on overtime due to the Contractor's inefficiency or voluntary election to pursue the work during overtime periods.

The County shall pay to the Contractor the actual cost of all materials furnished by the Contractor, associated with

maintenance activities, which are an integral part of the finished work, plus shipping, to which 25% shall be added for amounts up to \$100.00, 20% for amounts between \$100.00 and \$1,000.00, and 12% for all amounts equal to or in excess of \$1,000.00, said amounts to consist of the cost per item or unit which is normally sold or furnished as an integral unit. The County reserves the right to review the parts invoices to confirm material costs. The County reserves the right to purchase material to be held as inventory by the Contractor and installed in County equipment as the County may direct.

6. MULTIPLE CONCURRENT PROJECTS

The Contractor shall have adequate resources to handle two (2) or more Projects at the same time. Bidders shall define and submit a Management Plan and Resource List containing the minimum components (including personnel and equipment) to describe in detail their capability to handle multiple concurrent projects. The multiple concurrent project capability is considered a minimum requirement in the consideration of award of a contract for this solicitation.

III CONSTRUCTION AND REHABILITATION (NON-EMERGENCY)

1. PERSONNEL REQUIREMENTS

The Contractor shall provide sufficient qualified personnel as may be required to complete the assigned work, including one (1) IMSA Certified Level II Traffic Signal Technician to be available to assist in construction and rehabilitation projects as may be necessary. Only IMSA Certified Traffic Signal Level

II Technicians or personnel under the direct supervision of a Level II Technician shall be permitted to install/remove components from within the traffic control cabinet. The Contractor shall designate a construction supervisor to coordinate work with County staff.

2. EQUIPMENT AND STOCK

The Contractor shall provide sufficient equipment necessary to perform the work.

3. COMMUNICATIONS

The Contractor's construction supervisor shall be capable of communicating with County staff via pager or cellular telephone. All Contractor's telephone numbers, pager numbers, and cellular telephone numbers must be available and kept updated to Brevard County Traffic Operations Staff.

4. PROCEDURE

The Contractor shall not commence work until written authorization is received from County staff. Each notice to proceed will be sent to the Contractor at their preferred

address: Advanced Cabling Solutions, Inc.
201 Reece Way, STE 1431
Casselberry, FL 32707

The notice to proceed shall designate the time of completion for the work. Significant or consistent failure to complete the work in accordance with the agreed upon schedule is cause for termination.

A preconstruction conference is required prior to commencing work, unless specifically waived by County staff.

The Contractor is responsible for obtaining the location of all utilities in the vicinity of the work.

Upon completion of the work, the County and the Contractor will conduct a final inspection, during which a "punch list" will be developed. Upon completion of the punch list items, the COUNTY will accept the work, and will notify the Contractor of preliminary acceptance pending satisfactory completion of the burn-in period.

Construction and rehabilitation work shall have a sixty (60) day burn-in period, during which the Contractor is responsible for any maintenance calls, without charge to the County except for malfunction of County-supplied equipment. During the burn-in period, and during the construction phase of the project, the Contractor shall be capable of responding to emergency calls within a two (2) hour time frame. The County shall not be responsible for the emergency maintenance of construction or rehabilitation work during the construction or burn-in phases of the project.

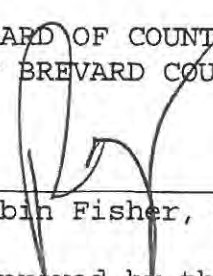
The Contractor shall submit invoices for construction and rehabilitation work to the address indicated on the Notice to Proceed.

Invoices may be submitted on a monthly basis in accordance with the work completed. The Contractor shall certify the work that has been completed.

Invoices will not be paid without proper supporting documentation.

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

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA



Robin Fisher, Chairman

Approved by the Board on
September 16, 2014

Reviewed for legal form and content:



Deputy County Attorney

ATTEST:

ADVANCED CABLING SOLUTIONS, INC.





Joseph W. Muniz, President





Exhibit A

Brevard County Traffic Operations

Intelligent Transportation Systems
Specifications and Technical Special Provisions

June 22, 2015

&

Supplemental Specifications For
Signalization and Highway Lighting

March 26, 2015

&

Brevard County Traffic Engineering
Signalization General Notes

January 16, 2015

**Brevard County
Traffic
Operations**

2015

**Intelligent Transportation Systems
Specifications and Technical Special
Provisions**



Public Works

6/22/2015

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1 Introduction

This document defines the technical specifications for the Intelligent Transportation System (ITS) equipment for Brevard County. The users of this document are envisaged to be the Consultants, Contractors, ITS equipment supplier/vendors, and Stakeholders (directly or indirectly involved in the project) who are providing ITS equipment and services for Brevard County Public Works, Traffic Operations Program.

This document details the technical specifications for the design, supply, installation, commissioning, and maintenance requirements for ITS equipment.

If there is a case of uncertainty with regards to the specification for ITS equipment the Brevard County Traffic Operations Manager or the ITS Systems Operator shall be consulted immediately before progressing any further.

2 General Provisions for ITS

All contractors, utility companies, and public agencies shall adhere to items outlined in these technical specifications when working with Brevard County Traffic Operations ITS facilities. Any contractor, subcontractor entering into a contract with the prime contractor, utility company, public agency, or other individual entering into a contract with the County to perform the work shall be construed herein as the "Contractor".

All work and materials shall be in accordance with the latest editions of the following standards:

- Manual on Uniform Traffic Control Devices (MUTCD)
- FDOT Design Standards
- FDOT Minimum Specifications for Traffic Control Signals and Devices
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT Plans Preparation Manual

Nothing in the Plans and Specifications shall be construed to permit work not complying with these standards.

3 Materials and Equipment

All equipment and components shall meet the requirements of FDOT's minimum specifications and be listed on the Department's Approved Product List (APL). All materials furnished and used shall be new, except such used materials as may be specifically provided for on the Plans.

All electrical installations shall be in accordance with the NFPA National Electrical Code. Examination, identification, installation, and use of materials and equipment shall be approved by the ITS Systems Operator.

4 Maintaining Existing ITS Systems

Existing electrical and communication systems, or approved temporary replacements thereof, shall be kept in effective operation during the progress of the Work, except when shutdown is permitted in writing by the ITS Systems Operator. The Contractor shall notify the ITS Systems Operator at least two full working days (not less than 48 hours) prior to the shutdown of any traffic signal or communication system. Shutdowns of ITS systems shall be limited to the period from 9 a.m. to 4 p.m. of normal working days, excluding holidays, weekends, and nonworking days as directed by the Traffic Operations Manager or their representative.

5 Scheduling of Work

The Contractor shall submit a written schedule to the Traffic Operations Manager and ITS Systems Operator one week in advance of the start of ITS work. Any deviation from the approved submitted schedule must be approved by the Traffic Operations Manager or their representative.

The Contractor shall notify the Traffic Operations Manager and ITS Systems Operator at least two working days in advance of any electrical work and also at least two working days in advance of any work done intermittently to facilitate inspection.

Emergency Repair response times will be as follows:

- The response time for any mal-functioning ITS equipment resulting in degradation of the normal flow of traffic, thereby creating unsafe conditions shall be within four (4) hours of notification. The contractor shall provide the emergency phone number for his/her standby technicians to the Brevard County Traffic Operations Manager and the ITS Systems Operator for such notification.
- The contractor shall restore or repair all mal-functioning ITS equipment to the original level of operation prior to the malfunction within twenty-four (24) hours of notification, or at an agreed upon time between the Traffic Operations Manager and the Contractor.
- The contractor shall restore all malfunctioning Advance Vehicle Detection Systems, by means of temporary or permanent detection. Vehicle Detection shall work to its original level of operation prior to the malfunction within twenty-four (24) hours of notification, or at an agreed upon time between the Traffic Operations Manager and the Contractor.
- The contractor shall restore all offline communications and shall work to its original level of operation prior to the malfunction within twenty-four (24) hours of notification. Temporary fiber optic mechanical or fusion splice may be used to restore communications within twenty-four (24) hours, or at an agreed upon time between the Traffic Operations Manager and the Contractor; however fusion splicing and/or a full replacement of the fiber optic run (nearest fiber vaults on both sides of a break) shall be required prior to final acceptance.

The contractor shall provide all necessary equipment and manpower during the course of construction.

6 Maintenance of Traffic

The Contractor shall submit a Maintenance of Traffic (MOT) Plan to the Traffic Operations Manager and ITS Systems Operator for review and approval one week in advance of the start of ITS work. The MOT plan shall conform to the latest edition of the FDOT Design Standards 600 series and the MUTCD.

An approved MOT Plan shall be required any time work is being performed within the Brevard County or FDOT Right of Way regardless of whether a permit is required. A copy of the MOT plan shall be kept on site at all times.

The contractor shall designate a Safety Supervisor who shall be directly responsible for the specified MOT plan to be implemented. The Safety Supervisor shall be available to Brevard County's Traffic Operations Manager or the ITS Systems Operator at all times.

The contractor shall have the responsibility of the setup and removal of all MOT devices when required. All such devices shall be in place before work begins, be correctly maintained while in use and be removed when work is complete. If, for an intermediate period, they do not apply to existing conditions, they shall be removed or covered. All of the aforementioned devices shall be moved as often as necessary to conform to the limits of the construction in order to convey their intended message clearly and correctly to the traveling public.

If it appears that the contractor has neglected to provide the safeguards which are necessary for the safe and proper maintenance of traffic, the County may place such working force and equipment on the work as may be necessary to provide for safe travel for the public, as determined by the County. In this case, the cost of the labor, equipment rental, material, and supervision will be charged to the contractor. The Brevard County Traffic Operations Manager may choose to provide corrective measures utilizing a secondary contracted vendor, in which case all direct costs shall be billed to the contractor.

The contractor shall maintain traffic vehicle detection and ITS communications as part of the maintenance of traffic. The cost for temporary traffic vehicle detection and temporary ITS communications shall be included as part of the lump sum maintenance of traffic pay items.

All construction and maintenance operations shall be scheduled to keep traffic delays to a minimum. Included in the operational category are such things as equipment, material delivery, vehicles, workers' vehicles, loose soil, dust and any other conditions, which may affect the traveled portion of the roadway or sidewalk, which may be carried to or from the worksite, shall be placed or stored in a planned manner to minimize the interference with traffic. The areas provided for material storage shall not be used for parking of the workers' vehicles.

7 Documentation

All ITS work shall be supplied with technical documentation as may be necessary to enable the end-user to operate, maintain, dismantle, reassemble, adjust, modify, extend, and dispose of any part of the system. ITS documentation may include maps, design plans, as-built record drawings, diagrams, specifications, manuals and handbooks, and any other information appropriate to the equipment being supplied.

Detailed design drawings shall be submitted to the ITS Systems Operator for review and approval. The drawings shall show materials specifications for each item of equipment proposed for use. Schematic diagrams shall be included. The proposed design for foundations of any poles or structures shall include design calculations and drawings.

When mounting ITS equipment on existing structures, an analysis of the structure to ensure the structure will not fail with the additional equipment shall be provided. The analysis must be performed by a fully qualified professional whose credentials shall be provided to the Traffic Operations Manager.

As-built record drawings shall include longitude and latitude data accurate to within two (2) meters for each of the ITS equipment and infrastructure installed. Fiber optic conduit, pull boxes, splice box locations, size of the conduit, fiber strand count, fiber type, and the type of splice/pull box shall be identified on the drawing.

8 ITS Telecommunications Network

The network is comprised of the following elements connected together in configurations appropriate to deliver the required service:

- Fiber Optic Cable
- Fixed line Transmission Equipment
- Wireless Transmission Equipment
- Data Cables
- End Devices

8.1 Fiber Optic Cable Requirements

The Contractor shall furnish, install, splice, and test all fiber optic cable trunk (72 fiber single mode) and drop cable (12 fiber single mode), fiber optic assemblies, patch cords, and all passive network infrastructures including, but not limited to splice trays and closures, patch panels, fan-outs, terminations, and fusion splices.

Furnish all tools, equipment, materials, supplies, and manufactured articles, and perform all operations and equipment integration necessary to provide a complete, fully operational passive fiber optic infrastructure.

The following are the minimum requirements for fiber optic cable:

- The fiber optic cable installation techniques and procedures shall be as specified by the cable manufacturer and shall be such that the optical and mechanical characteristics of the cables are not degraded at the time of installation. The central strength member and aramid yarn shall be attached directly to the pulling eye during cable pulling. "Basket grip" or "Chinese finger" type attachments to the cable outer tensile rating shall be used on all pulls.
- Contractor shall notify the ITS Systems Operator at least two full working days prior to disconnecting any fibers and all fiber splicing. Mid-span splices to the fiber optic trunk cable should be avoided and will need to be approved by the Traffic Operations Manager or the ITS Systems Operator.
- Under no circumstances shall energized cable be placed in the same conduit or pull box as fiber optic cable.
- Fiber optic cable shall include a 12 gauge, single conductor locate wire pulled in the same underground conduit as the fiber optic cable. This wire shall have oil and water resistant orange insulation. The locate wire shall terminate at ground rods on the eastern and western extents of the underground runs.
- Fiber optic drops from the trunk cable to the controller cabinets shall be accomplished via a splice enclosure adjacent and external to the cabinets, with 12-fiber SM pre-terminated drops into the traffic cabinet.
- Unless otherwise noted in the plans, fiber optic minimum slack requirements are 50 feet for drops and 200 feet for trunk cable in splice vaults.
- Termination panels, fiber terminations and jumpers will be incidental to the cost of the drop cables. All existing cabinets require new termination panels, do not use existing.
- Fiber optic connection hardware (splice enclosure) includes all splice trays as necessary.
- No contractor shall be permitted to move any patch panel connections unless indicated on the plans or without prior approval. Any patch panel changes shall be documented in writing.
- All work involving the splicing or testing of live fibers is to be performed outside of normal business hours (7am-6pm Monday - Friday) unless approved by the traffic operations manager.
- All fiber optic conduits shall have a "Brevard County Fiber Optic Cable Buried Below" warning tape continuously run in the trench 18 inches below grade. In addition, raised markers indicating "Brevard County Fiber Optic Cable Buried Below" shall be installed at each fiber vault along the fiber route and at any turns in the conduit run.

- Conduit run shall not exceed 270° of bends between fiber vaults or junction boxes.
- All HDPE conduit connections shall be joined with electro-fusion coupling.
- Minimum required conduit bury depths shall be maintained where conflicts occur with drainage or other utilities per these plans.
- All new underground conduits shall be sealed at both ends to prevent the entry of dust, dirt or moisture.
- All conduit trenches shall be backfilled completely to provide safe crossing by the end of each working day or whenever the work zone becomes inactive. The contractor shall not open any area that cannot be backfilled in the same day/night operation.
- It shall be the contractor's responsibility to examine job site conditions before submitting bid proposals in accordance with Section 2-4 of the FDOT specifications. The contractor shall hand dig the first 4 feet to verify possible utility conflict.
- Multiple conduit runs in the same trench shall be jack and bored or directional bored for the first conduit only. Subsequent conduit runs will be paid for as underground.
- The contractor shall maintain the existing fiber optic network within the limits of construction. At no time shall there be any loss of communications or data along the Brevard County fiber optic network. Any construction activities within ten feet of the fiber optic network shall be performed on one side of the road at a time. The contractor shall review specification 631 for other Fiber Optic Network preservation details.
- Upon final acceptance of the project, the contractor shall provide a complete set of as-built record drawings with all changes marked in red to the ITS Systems Operator. The as-builts shall contain accurately dimensioned locations for fiber optic cable; pull boxes, power services, conduits, structures, and field components. The as-built plans shall include a record of the color designations of all HDPE conduits used, as well as fiber splicing and port assignments.

8.2 Fiber Optic Cable Pull, Splice, and Junction Boxes

Fiber Optic Pull, Splice, and Junction Boxes shall be furnished and installed in accordance with FDOT Specification 635. The fabrication material shall be of a composite mixture of polymer and concrete and reinforced by a heavy-weave fiberglass creating a material compressive strength of no less than 110 psi. Fiber Optic Pull Boxes shall have a minimum design rating of 20,800 lbs. over a 10-inch by 10-inch area and be designed and tested to temperatures of -50° F.

- All fiber optic pull boxes shall have "Brevard County Fiber Optics" stamped on the cover.

- Each fiber optic pull box shall include a minimum of 20 linear feet of grounding electrode in accordance with FDOT standard specifications section 620 and shall meet a measured resistance of 25 ohms or less. If 25 ohms or less is not obtained with the initial 20 linear feet of grounding electrode, then additional grounding electrode or a grounding array shall be installed until measured resistance of 25 ohms or less is achieved.

8.3 ITS Network Devices

The ITS Network consists of a system of device servers that includes a central processing unit (CPU), real-time operating system (RTOS), Transmission Control Protocol/Internet Protocol (TCP/IP) stack, and Ethernet and serial data ports to allow connection of serial devices through connections to an Ethernet network. Ensure that the device server (also referred to as a terminal server) encapsulates serial data in network packets and transports them across IP networks. Ensure that the device server provides 99.999% error-free operation and EIA-compatible Ethernet data communication by way of a Category 5E copper or fiber optic transmission medium and an encryption feature that provides data security and prevents interception or “sniffing” of transmitted information by unauthorized parties. Data security shall comply with Version 2 of the Secure Shell Protocol (SSHv2), or the NIST requirements as defined in the Federal Information Processing Standard (FIPS) Publication (PUB)-197 for the Advanced Encryption Standard (AES).

The ITS Private Network provides for device servers that supports local and remote configuration and management, which must include access to all user-programmable features, including but not limited to addressing, port configuration, device monitoring, diagnostic utilities, and security functions. Ensure that the device server supports configuration and management via serial login, SNMP, telnet login, and browser-based interface.

The following are the Minimum Standards for the Layer II and Layer III Switching equipment utilized by Brevard County Traffic Operations ITS:

Layer II Switch

- Network Switches shall be Managed Field Ethernet Switch ITS-8040 – ITS Express – with the following functionality.
- The managed Layer 2 switch shall provide a minimum of 12 Ethernet ports including 4-1000BaseX SFP ports and 8-10/100/1000BaseT, 10/100/1000BaseX SFP auto-negotiating combo ports.
- All SFP ports shall operate multimode or Singlemode SFP transceivers and provide SFP monitoring with compatible modules so that SFP temperature, received/transmitted light levels, and operating voltages can be displayed.
- Copper ports shall include a cable test feature that displays pair continuity, transposition, cable length and electrical shorts.

- The Layer 2 managed switch must be capable of sustained operation in the -40 to 85 degree Celsius temperature range at up to 95% humidity, without cooling fans.
- The switch hardware shall provide a minimum 24 gigabit per second backplane.
- Physical installation into the operating environment shall be via DIN rail or wall mount bracket.
- Network protocols supported shall include IGMP versions 1-3, IEEE 802.1s MSTP, sFlow, IEEE 802.1q VLAN tagging, IEEE 802.1ab Link Layer Discovery Protocol, ITS-Ring redundancy protocol, and IEEE 802.3ad Port Trunk with LACP.
- The management functionality shall be available via HTTP, telnet, or craft console port.
- Context sensitive help will be provided through the web interface. MAC address filtering per port shall be provided. Port mirroring capability must be provided with output selectable from the mirrored transmitted, received, or all packets.
- The Layer 2 switch must be capable of sending SMTP email messages to operators when triggered by events such as link failure or SFP over-temperature; these same messages are to be stored in an onboard retrievable syslog. Access Command Lists (ACLs) controlling ingress or egress traffic shall be configurable.

Layer III Switch

- Network Layer III Switches shall be the Juniper Networks EX4200 Ethernet switch with Virtual Chassis technology, high availability (HA) redundancy and carrier-class reliability of modular systems – with the following functionality.
- Backplane: 128 Gbps Virtual Chassis interconnect to combine up to 10 units as a single logical device.
- GbE SFP optic/connector type: RJ-45 or LC SFP fiber supporting 1000BASE-T SFP, SX (multimode), LX (single-mode), LH/ZX (single-mode) and BX (single strand).
- Environmental Ranges of Operating temperature: 32° to 113° F (0° to 45° C), • Storage temperature: -40° to 158° F (-40° to 70° C), Operating altitude: up to 10,000 ft (3,049 m), Non-operating altitude: up to 16,000 ft (4,877 m), Relative humidity operating: 10% to 85% (noncondensing), Relative humidity non-operating: 0% to 95% (noncondensing)
- Cooling (Airflow: 20.3 cfm) by Field-replaceable fan tray with multiple blowers (3) and Switch remains operational even if one blower fails.
- Supports Layer II features:
 - IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)
 - LLDP-MED with VoIP integration
 - IEEE 802.1D: Spanning Tree Protocol

- IEEE 802.1p: CoS prioritization
- IEEE 802.1Q: VLAN tagging
- IEEE 802.1s: Multiple instances of Spanning Tree Protocol (MSTP)
- IEEE 802.1w: Rapid reconfiguration of Spanning Tree Protocol
- IEEE 802.1X: Port Access Control
- IEEE 802.1ak: Multiple Registration Protocol
- IEEE 802.3: 10BASE-T
- IEEE 802.3u: 100BASE-T
- IEEE 802.3ab: 1000BASE-T
- IEEE 802.3z: 1000BASE-X
- IEEE 802.3ae: 10 Gigabit Ethernet
- IEEE 802.3af: Power over Ethernet
- IEEE 802.3x: Pause Frames/Flow Control
- IEEE 802.3ad: Link Aggregation Control Protocol
- Supports Layer III features:
 - IPv4
 - Max number of ARP entries: 16,000
 - Max number of IPv4 unicast routes in hardware: 16,000
 - Max number of IPv4 multicast routes in hardware: 8,000
 - Routing protocols: RIPv1/v2, OSPF, BGP, IS-IS
 - Static routing
 - Routing policy
 - Bidirectional Forwarding Detection
 - Layer 3 redundancy: VRRP
- High Availability with Non-Stop Routing (NSR) - PIM, OSPF v2 and v3, RIPv2, RIPv3, BGP, BGPv6, ISIS, IGMP v1, v2, v3
 - Non-Stop Software Upgrade (NSSU)
 - Redundant, hot-swappable power supplies
 - Redundant, field-replaceable, hot-swappable fans
 - Graceful Route Engine Switchover (GRES) for Layer 2 hitless forwarding and Layer 3 protocols on RE failover
 - Graceful protocol restart – OSPF, BGP
 - Layer 2 hitless forwarding on RE failover

8.4 ITS Traffic Detection and Monitoring Systems

The traffic detectors are interfaced with roadside controllers and management systems to provide valuable real-time and historical data, including speed, volumes, vehicle presence, occupancy, gaps, and incident occurrence. This data is utilized to complete a variety of functions, including real-time traffic and incident management, historical analysis, and performance measuring. The types of vehicle detection systems that are currently used in Brevard County include:

- Inductive Loop Detection
- Video Imaging Vehicle Detection Systems

- Magnetometer Detection Systems
- Microwave Vehicle Detection Systems
- Bluetooth® Device Matching Systems

The traffic detector system shall use standard data communication protocols and be compatible with the Traffic Management Center (TMC) master software. The equipment shall be designed and installed such that it is easily accessible and does not require proprietary tools during routine preventative maintenance.

8.5 Closed Circuit Television (CCTV) Cameras

The CCTV cameras enable the Traffic Management Center (TMC) operators to have an enhanced situational awareness of the transportation network via transmission to the TMC over the County's fiber optic communication system. Components of CCTV cameras includes lens, housing, pan/tilt drive, cabling, camera interface panel, communications interface fiber, mounting arm, power supply, electrical cabling, and connections. Replacement CCTV cameras shall match existing IRC deployed devices, Bosch G4 or approved equal.

The contractor shall furnish and install the required CCTV camera-mounting arm as shown in the plans. Required hardware and banding shall be incidental to the camera installation. The mounting arm shall mate with the conduit that contains the camera communications cable. The mounting arm shall completely conceal the camera communications cable so that exposed wiring is at a minimum. The attachment of the CCTV camera assembly to the mounting arm, the electrical connections, and the attachment of the arm to the camera support structure shall be in accordance with the camera manufacturer's installation recommendations.

The CCTV system shall include a mechanical zoom lens and also use digital signal processor technology supporting electronic zoom. The lightweight camera zoom lens shall be mounted on a high speed digital stepping motor controlled pan and tilt unit. Both pan and tilt unit and camera shall be mounted in a dome environmental housing which provides environmental protection for camera and pan, tilt, and zoom (PTZ) electronics.

Ensure that the software application provides PC desktop display of IP network video streams and control of any PTZ camera connected to the network. The decoder and PTZ functions may be achieved through the use of discrete software applications. Ensure that the software-based decoder offers an open API and software development kit available to the owner at no cost for integration with third party software and systems.

9 ITS Facility Management (ITSFM)

The Brevard County Traffic Operations Program has implemented a tool with a proven capability for managing the countywide fiber optic communication network, as well as the ability to manage a wide range of ITS subsystems consisting of field devices, traffic signal equipment, and other fiber related facilities throughout network. These ITS subsystems are comprised of a complex network of fiber optic and electrical cables, electronics, and field devices that are constantly changing

through system expansions, routine maintenance, or equipment updates. The County's Traffic Operations program has chosen to align with the FDOT and follow their endorsement of the ITS Facility Management (ITSFM) system application.

FDOT has procured an enterprise Statewide license from the ITSFM manufacturer and through an agreement between the State of Florida's Regional Partners and FDOT to offer access to a single statewide implementation that is administered centrally by FDOT, but available to all users over the Internet in a secure manner. The ITSFM application system will improve the County's Traffic Operations department's ability to effectively maintain and reduce the efforts required to troubleshoot maintenance issues and plan and design timely network expansions or rearrangements.

ITSFM is a GIS (Geographical Information System) based web application that provides for the modeling of the fiber network facilities and connected fiber devices, as well as ITS devices and the electrical systems powering the ITS device sites. This application provides dynamic and interactive mapping of the County's fiber network, as well as compiles information about network assets into a single, accessible geo-based graphical and tabular database allowing the Traffic Operations Program to manage the entire system.

It is important that the system be updated as changes and upgrades are made to the transportation system. As part of this effort, the Contractor may be required to provide additional documentation of the ITS facilities that have been installed. The Contractor shall refer to and comply with the FDOT ITS Construction Inspection and As-built Guidelines available on the web. The Contractor shall utilize the procedures and forms available, including Daily Report of Construction, ITS Quality Checklists, the ITSFM Attribute forms, and the as-built guidelines presented in these Guidelines and through the FDOT ITSFM website.

**Brevard County
Traffic Operations**



**SUPPLEMENTAL SPECIFICATIONS FOR
SIGNALIZATION AND HIGHWAY LIGHTING**

March 26, 2015

1. General Specifications

- 1.1. All construction, installation and equipment shall be in accordance with the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, latest edition, and the FDOT Design Standards, latest edition, except as otherwise noted herein. If there are conflicts between this specification and the FDOT documents noted above, this specification shall govern.
- 1.2. The Contractor shall submit three (3) sets of shop drawings; three (3) sets of manufacturer's descriptive literature; technical data for each equipment item proposed; and three (3) sets of construction plans showing the cable runs, conductors and conduit for each intersection to be constructed. Additional sets may be required for other agencies.
- 1.3. The Contractor shall submit one (1) electronic copy and three (3) sets of as-built plans to Traffic Operations showing the cable runs, conductors, and conduits for each intersection. These as-builts shall meet the latest FDOT Standard Specifications for Road and Bridge Construction, Specification 611 - Acceptance Procedures for Traffic Control Signals and Devices.
- 1.4. Signals at previously unsignalized intersections shall be placed in flashing operation for no less than seven (7) days and no more than fourteen (14) days prior to being placed into full operation.
 - 1.4.1. Signals shall be placed in full operation only on a Tuesday, Wednesday, or Thursday.
 - 1.4.2. Brevard County Traffic Operations shall be given notice 12 hours prior to being placed in flash and 24 hours prior to activation.
 - 1.4.3. When requested by the Traffic Operations Program Manager or their designee, the Contractor shall provide a Portable Dynamic Message Sign (PDMS) displaying "CAUTION" and "NEW SIGNAL AHEAD".
 - 1.4.4. PDMS shall be placed on two (2) approaches as directed, typically 500 feet in advance of stop bars. PDMS shall be capable of automatic day/night visibility and operation for seven (7) days, in any weather, with 2-hour response time in case of failure.
- 1.5. Maintenance of Traffic shall be in accordance with FDOT Design Standard Index 600 Series and the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.
- 1.6. The County has the first right to equipment designated to be removed from the site. Before the final inspection the contractor shall deliver equipment claimed by the County to Traffic Operations, 580 Manor Drive, Merritt Island, Florida 32952. The contractor shall dispose of any equipment not claimed by the County per FDOT specification.

2. Signal Construction Specifications

- 2.1. Two (2) conduit runs shall be provided between each pole and the cabinet entry pull box. Pull strings shall be installed in empty conduits. At minimum, there shall be seven (7) - 2" conduits and two (2) - 1" conduits entering the cabinet, as follows. (See also Exhibit A)
 - 2.1.1. Seven (7) 2" conduits to include: (2) signal cable, (1) pedestrian cable, (1) communications, (1) detector, and (2) spare from the cabinet to the nearest pull-box.
 - 2.1.2. Two (2) 1" conduits to include: (1) Rigid Galvanized Steel (RGS) electrical service per FDOT Specification 630 - Conduit and (1) PVC for ground rods.
- 2.2. A generator tie-down consisting of a 12" eye bolt shall be installed on the hinge side of the cabinet pad. See Exhibit A.

- 2.3. Cabinets, pedestrian signal, flasher pedestal bases, and vehicle signals shall be attached with "Red Head anchors" (5/8" – 3/4").
- 2.4. Cabinet bases shall be a minimum of 10" above the adjacent top of curb or edge of pavement, and must include a technician pad (see Exhibit A). All cabinet bases shall be able to accommodate an uninterruptable power supply (UPS). Refer to Section 5 for UPS Specifications. Contractor shall notify Traffic Operations a minimum of 48 hours prior to base installation.
- 2.5. An anti-seize compound shall be applied to the threads of all nuts, bolts, and attachment hardware that are exposed to weather. The compound shall be applied during installation and whenever fasteners are manipulated during maintenance. A contact paste shall be applied in accordance with manufacturer's recommendations on all electrical connections inside the service disconnect.
- 2.6. Hardware connections exposed to weather shall be sealed with appropriate gasket material, or clear silicone caulk. This includes top-of-signal to mounting hardware connections.
- 2.7. Mast arm assemblies shall be unpainted, galvanized steel unless otherwise directed by the Traffic Operations Program Manager.
- 2.8. Pedestrian cable assemblies shall be continuous between each mounting pole and the cabinet. No splicing will be allowed in intermediate locations or disconnect hangers unless approved otherwise.
- 2.9 Priority pre-emption shall be a continuous run (no splices) and shall be rated for wet locations.

3. Illumination Systems Specifications

- 3.1. Intersection lighting and/or illuminated sign control shall be accomplished with a single control point and photocell, connected to the spare breaker slot in the service disconnect or in the cabinet where applicable.
- 3.2. Street lighting systems shall be of the 4-wire design, with one (1) neutral line, two (2) electrical feed lines (example: 2-240 VAC lines of opposite phases of 480 VAC), and one (1) bonded ground line with a breakaway-type fused link at the base of the pole.
- 3.3. Light pole bases shall include a transformer base of TB-1 or TB-2 configuration as bolt circle conversion requires.
- 3.4. Where a cobra head fixture is required, a flat medium cut-off lens is to be provided at minimum.
- 3.5. Where lighting structures are visible from the Atlantic shore, proper shielding shall be provided to direct lighting away from the beach. Beachside inspections will include nighttime viewing to ensure that no stray light shines toward the beach. Final approval is subject to compliance with State and Federal regulations.
- 3.6. All street lighting shall be provided by either 250 Watt or 400 Watt High Pressure Sodium lamps with mogul base, unless Low Pressure Sodium lighting is required for environmental reasons.
- 3.7. Street lighting structures adjacent to, or over, open waterways need to be equipped with vibration dampeners as recommended by the manufacturer.

4. Traffic Control Equipment

- 4.1. For system compatibility the equipment listed below shall be manufactured by the following companies or with identical and/or specified designs when approved by the Traffic Operations Program Manager or their designee:
 - 4.1.1. Signal disconnects, adjustable hangers, and saddle clamps - Engineered Castings Corporation.
Cost Cast is not permitted.

- 4.1.2. Traffic signal service disconnect (breaker box) -100 Amp service with lightning arrestor terminated under separate lug as required in NEC 2010 manufactured by Square D - QO Series, GE, or Siemens.
 - 4.1.3. Traffic signal heads shall be all black polycarbonate Econolite with a reinforcement plate in the top sections and retro reflective back plates.
 - 4.1.4. Signal indications shall be Gelcore Series Light Emitting Diode (LED) modules by GE.
 - 4.1.5. Pedestrian signal heads shall be all polycarbonate, 1-section (16"x18") with two 1/4" weep holes in the bottom of the fixture and LED countdown indications.
 - 4.1.6. Loop Detectors shall be LCD 2-channel rack mount detectors by Eberle Design (Oracle Series), Naztec, or Reno A&E.
 - 4.1.7. Pedestrian detectors shall be Bulldog Series piezo-activated detectors with a momentary indicator by Polara, with one 1/4" weep hole in the bottom.
 - 4.1.8. Video Detection shall be Encore Terra cameras with integrated machine vision processors by Autoscope.
 - 4.1.9. Cameras shall be connected by a three-wire connection between overhead video processor and the control cabinet for networking, video streaming, and data communications. Coaxial cable is not permitted.
- 4.2. The Traffic Controller Cabinet will be a TS-2 Type 1 Cabinet, with a UPS Assembly installed separately. The Traffic Signal Cabinet and UPS cabinet will stand alone. (No Integrated Signal Cabinets) Traffic Control Equipment shall be compatible with Brevard County ATMS.now software package by Naztec/Trafficware, Inc. and shall comply with the following provisions:

Quantity	Description
1	Naztec TS2 Type 1 ATC Ethernet Enabled Controller version 76.x
1	Type 6 Signal Controller Cabinet
1	MMU Model 516L-E with Ethernet
3	TS2 BIU Model 130
16	NEMA Load Switches
1	NEMA Flasher
5	Flash Transfer Relays
1	Luminaire Panel w/ test switch and photo-cell
1	TS2 Cabinet Power Supply
1	16 Channel Detector Rack
1	2 Channel Opticom Rack & Field Panel
1	16 Channel Loop Detector Panel w/ 16 SRA-6LC Surge Arrestors
1	Set of FL DOT Spec Load Resistors for Back Panel
1	Ball Bearing Roller Drawer
1	Generator Plug-in Module 639-4-1
4	Naztec LCD Detector 2 CH TS2 660-1-10
1	Express Supply ITS Express Ethernet Switch Model 8040 (Ethernet Switch includes connection between switch and controller)

5. Uninterruptible Power Supply (UPS) Batteries

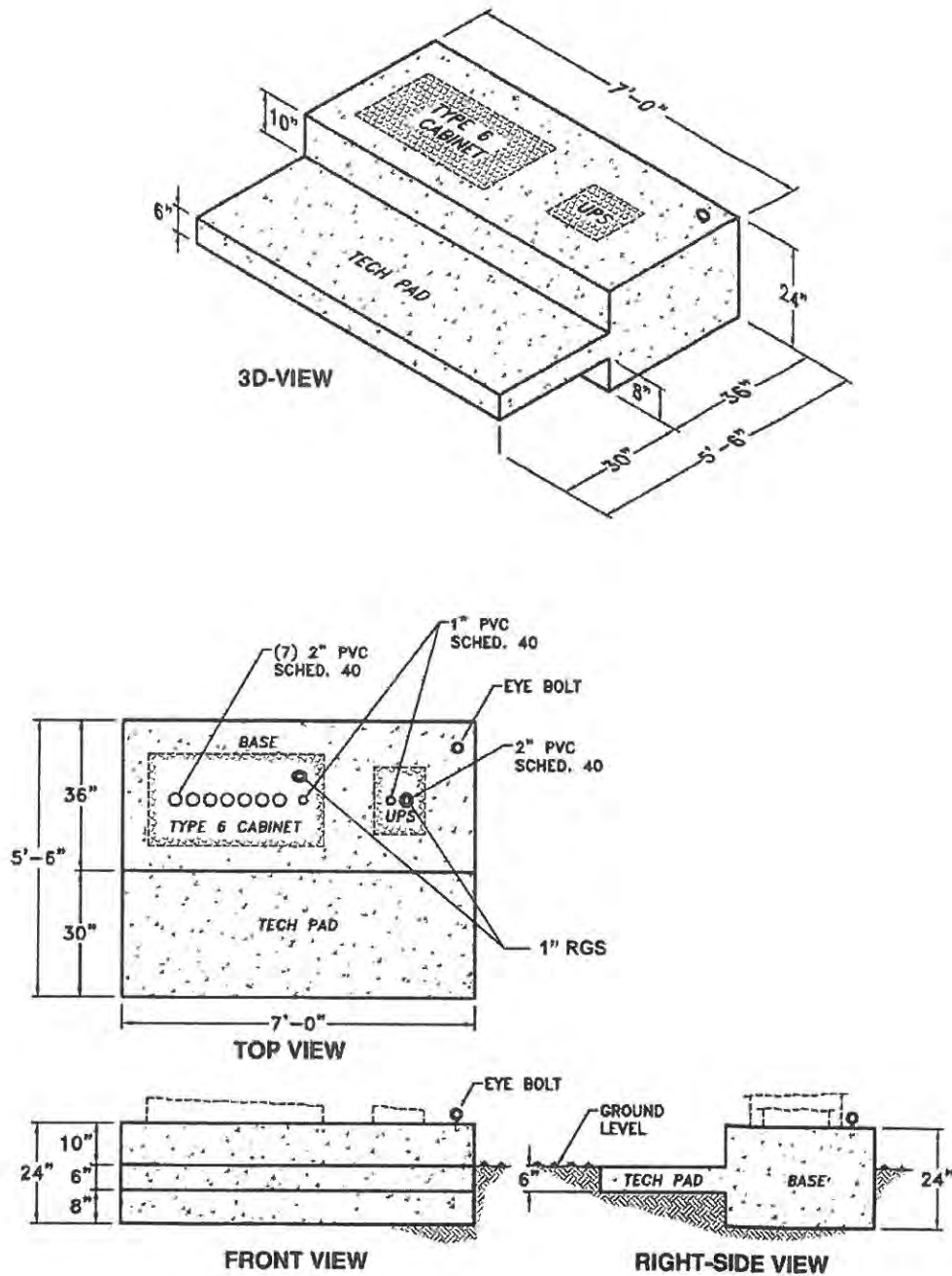
- 5.1. The UPS shall be an Alpha FL08 UPS FXM1100 with 220 GXL Batteries for 8.5 hours run time at 450W (Batteries with a battery balancer which provides a 5 year warranty).
- 5.2. The Alpha Outdoor Enclosure Type 6 shall be a stand-alone base mount style only.

6. Back-Up Generator

- 6.1 Generator shall be a Portable Honda EU 3000iS generator 3000W, 120V super quiet, with convenient electric start.
- 6.2 Generator shall be fuel efficient up to 20 hours on 3.4 gallons of gas.
- 6.3 Inverter provides stable power for computers and more.
- 6.4 Honda EU 3000 Wheel Kit to be included.

**Brevard County Traffic Engineering
Supplemental Specifications for Signalization and Highway Lighting**

Exhibit A – Concrete Cabinet Base



*Brevard County
Traffic Engineering*



**BREVARD COUNTY TRAFFIC ENGINEERING
SIGNALIZATION GENERAL NOTES
January 16, 2015**

1. EQUIPMENT, INSTALLATION, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS AND THE FOLLOWING, UNLESS OTHERWISE NOTED.
 - a. FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
 - b. FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION.
 - c. BREVARD COUNTY SUPPLEMENTAL SPECIFICATIONS FOR SIGNALIZATION AND HIGHWAY LIGHTING, LATEST EDITION (2015)
 - d. IF CONFLICTS ARISE, THE BREVARD COUNTY SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN.
2. THE MAINTAINING AGENCY IS BREVARD COUNTY TRAFFIC OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE MAINTAINING AGENCY AT LEAST 72 HOURS BEFORE BEGINNING TRAFFIC SIGNAL RELATED WORK (321-455-1440).
3. CHANGES IN THE PLACEMENT OF VEHICLE DETECTION LOOPS, ZONES OR ANY PART OF THE SIGNALIZATION PLANS ARE PROHIBITED, UNLESS WRITTEN APPROVAL IS OBTAINED FROM BREVARD COUNTY TRAFFIC OPERATIONS MANAGER OR THEIR DESIGNATED REPRESENTATIVE.
4. DETECTOR UNIT RACKS SHALL BE PLAINLY LABELED BY DETECTOR AND PHASE IN ACCORDANCE WITH THE SIGNAL-OPERATING PLAN AND NEMA STANDARD.
5. ALL SIGNAL HEADS SHALL HAVE TUNNEL VISORS AND LED DISPLAYS.
6. ALL VEHICULAR SIGNAL HEADS SHALL BE BLACK ALL POLYCARBONATE. FOR SPANWIRE INSTALLATIONS, THE TOP SECTION OF THE THREE-SECTION HEADS SHALL BE REINFORCED WITH A STAINLESS OR CADMIUM PLATED STEEL PLATE. ALL FIVE-SECTION SIGNAL HEADS SHALL OPEN AWAY FROM THE CENTER OF THE SIGNAL HEAD FOR SERVICE ACCESS.
7. FOR SPANWIRE INSTALLATIONS, FIVE SECTION SIGNAL HEADS SHALL BE LIGHTWEIGHT WITH AN ALUMINUM TOP SECTION.
8. PEDESTRIAN FACILITIES SHALL NOT BE OBSTRUCTED BY SIGNAL EQUIPMENT.
9. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105-5.10. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FDOT SPECIFICATION 611-2.2 WITH BOTH THE ENGINEER OF RECORD AND THE MAINTAINING AGENCY AT LEAST TEN DAYS IN ADVANCE SO THAT THEY CAN BE PRESENT.
10. THE CONTRACTOR SHALL HAND DIG THE FIRST (4) FEET AT EACH POLE LOCATION AND (2) FEET AT EACH PEDESTAL LOCATION TO VERIFY NO UTILITIES CONFLICTS.

11. THE MAINTENANCE OF THE SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR FROM THE TIME WORK BEGINS OR ANY GROUND IS BROKEN ON SITE UNTIL FINAL ACCEPTANCE.
12. THE CONTRACTOR SHALL HAVE AN IMSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A MAXIMUM OF TWO HOURS RESPONSE TIME.
13. EQUIPMENT SHALL MEET THESE FUNCTIONAL SPECIFICATIONS OR REQUIREMENTS:
 - a. SIGNAL CONTROLLERS AND CABINETS – CABINET SHALL BE OF NEMA TS-2 TYPE 1 CONFIGURATION OF THE NAZTEC DESIGN. EQUIPMENT SHALL BE COMPATIBLE WITH BREVARD COUNTY ATMS SYSTEM UTILIZING THE NAZTEC ATMS.NOW SOFTWARE.
 - b. UNINTERRUPTIBLE POWER SUPPLIES – UPS UNITS SHALL INCLUDE AN ETHERNET REMOTE MANAGEMENT MODULE AND BE IP ADDRESSABLE. UNITS SHALL PROVIDE REMOTE HTTP WEB PAGE MANAGEMENT. A MINIMUM OF 1100 VA CAPACITY (9.1 AMPS OUTPUT) IS REQUIRED. UNITS SHALL PROVIDE VOLTAGE REGULATION IN VARIABLE POWER CONDITIONS. ADDITIONALLY, BATTERIES SUPPLIED WITH THE SYSTEM SHALL BE 100 AMP HOUR MINIMUM GAS MAT CONSTRUCTION.
 - c. GENERATORS- AN ES3000IS HONDA 3000WATT, 120V SUPER QUIET WITH INVERTER THAT PROVIDES STABLE POWER FOR COMPUTERS AND MORE.
 - d. SIGNAL DISCONNECTS–SHALL BE ENGINEER CASTING (COST CAST IS NOT PERMITTED DUE TO HISTORY OF FAILURE).
 - e. TRAFFIC SIGNAL SERVICE PANEL – MEETING SPECIFICATIONS OF SQUARE D QO SERIES WITH LIGHTNING ARRESTER TERMINATED UNDER SEPARATE LUG AS REQUIRED IN NEC 2010.
 - f. TRAFFIC SIGNAL HEADS SHALL INCLUDE MINIMUM OF FIVE BOLTS CONNECTING THE BLACK POLYCARBONATE SIGNAL SECTIONS IN ADDITION TO THE TRI-STUD COUPLING. ADDITIONALLY, THE TOP SECTION SHALL INCLUDE A STAINLESS STEEL REINFORCEMENT PLATE TO STRENGTHEN THE TRI-STUD ATTACHMENT.
 - g. PEDESTRIAN SIGNAL INDICATIONS SHALL BE 16" x 18" AND INCLUDE A COUNTDOWN DISPLAY, "NO HAND / MAN OVERLAYS".
 - h. PEDESTRIAN SIGNAL ASSEMBLIES SHALL BE BLACK POLYCARBONATE. THE MOUNTING ARMS SHALL BE EITHER POLYCARBONATE OR ALUMINUM. THE SIGNAL HEAD SHALL HAVE (2) – ¼" WEEP HOLES PLACED IN THE BOTTOM.
 - i. PEDESTRIAN DETECTORS SHALL BE PIEZO ACTIVATED AND INCLUDE A MOMENTARY INDICATOR AND AUDIBLE TONE AS THE POLARA BULLDOG DETECTOR PROVIDES, DETECTOR HOUSING SHALL HAVE (1) - ¼" WEEP HOLE PLACED IN THE BOTTOM.
 - j. VIDEO DETECTION – THE VIDEO DETECTION SYSTEM SHALL UTILIZE A THREE-WIRE BROADBAND OVER POWER CONNECTION BETWEEN OVERHEAD VIDEO PROCESSOR AND CONTROLLER CABINET. NO COAXIAL CABLE CONNECTION WILL BE ACCEPTED. VIDEO PROCESSING SHALL BE PERFORMED IN THE OVERHEAD MOUNTED VIDEO UNITS.
 - k. ILLUMINATED STREET NAME SIGNS – SHALL BE LED ILLUMINATED, WITH A SINGLE PHOTOCCELL PROVIDING NIGHT/DAY CONTROL FOR ALL SIGNS WITHIN THE INTERSECTION.

14. DISCONNECTS SHALL BE 18 CIRCUIT TERMINAL BLOCK SO THAT EACH WIRE OF A SIGNAL CABLE CAN BE TERMINATED UNDER A COMPRESSION TYPE SCREW. ALL SPARES ARE TO BE TERMINATED TO TERMINAL BLOCK OVERHEAD.
15. IN SPAN MOUNTED INSTALLATIONS, SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCK WITHOUT USING "CINCH JONES" PLUGS. DROP HANGERS SHALL BE TRI-STUD AND SERRATED. ADJUSTABLE DROP PIPES ARE PROHIBITED.
16. A MINIMUM OF SIX (6) INCHES OF SLACK SHALL BE PLACED IN THE CONDUCTORS WHICH BYPASS HANGERS OR DISCONNECTS IN ORDER TO PREVENT CHAFFING AND TO PROVIDE FOR SERVICEABILITY.
17. IN SPAN-MOUNTED INSTALLATIONS, TWO RUNS OF 16-CONDUCTOR SIGNAL CABLE SHALL BE PROVIDED FOR FUTURE EXPANSION. PEDESTRIAN HEADS AND PUSH BUTTON DETECTORS SHALL BE CABLED WITH 12-CONDUCTOR CABLE AND SHALL HAVE AT LEAST TWO SPARE WIRES FOR EACH HEAD OR BUTTON.
18. IN MAST ARM INSTALLATIONS, A SEPARATE CABLE SHALL BE RUN FROM MAST ARM BASE TO EACH SIGNAL HEAD. ALL VEHICULAR SIGNAL HEADS SHALL BE PROVIDED WITH THREE SPARE WIRES. PEDESTRIAN SIGNALS SHALL BE CONNECTED WITH A 5-CONDUCTOR CABLE AND PEDESTRIAN PUSH BUTTONS SHALL BE CONNECTED WITH A 3-CONDUCTOR CABLE.
19. BASKET TYPE CABLE STRAIN RELIEF SHALL BE UTILIZED TO SUSPEND CABLES FROM THE J-HOOK OF MAST ARM ASSEMBLIES. A MINIMUM OF SIX (6) FEET OF SLACK IN SIGNAL CONDUCTOR CABLES SHALL BE PLACED WITHIN THE UPRIGHT BASE SUCH THAT THE TERMINAL BLOCK CAN BE REMOVED FROM THE UPRIGHT TO ALLOW FOR TROUBLE SHOOTING.
20. ALL CABLING SHALL BE LABELED BY CABLE AND BY WIRE. INTERCONNECT CABLING SHALL INDICATE DIRECTION AND NEXT TERMINATED CABINET. ALL SPARES SHALL BE LABELED AS SPARES IN ASSOCIATED RUN SUCH AS "WB ARM" FOR THE WESTBOUND MASTARM SPARES. LABELING SHALL BE ATTACHED TO CABLE NEAR THE TERMINATION POINT.
21. CABINET WIRING SHALL BE NEATLY BUNDLED, SEPARATED, AND LABELED MAST ARM ASSEMBLIES SHALL BE UNPAINTED, GALVANIZED STEEL UNLESS DIRECTED DIFFERENTLY BY THE COUNTY PROJECT MANAGER.
22. TWO CONDUIT RUNS SHALL BE PROVIDED BETWEEN EACH POLE AND THE CABINET ENTRY PULL BOX. PULL STRINGS ARE TO BE INSTALLED IN ALL SPARE CONDUITS. AT MINIMUM, THERE SHALL BE SEVEN (7) 2-INCH CONDUITS ENTERING THE CABINET AS FOLLOWS: (1- ELECTRICAL SERVICE, 2-SIGNAL CABLE, 1- PEDESTRIAN CABLE, 1-COMMUNICATIONS, 1- DETECTOR, AND 1-SPARE FROM THE CABINET TO THE NEAREST PULL BOX).

23. PEDESTRIAN CABLE ASSEMBLIES SHALL BE CONTINUOUS FROM MOUNTING LOCATION TO CONTROL CABINET. SPLICING WILL NOT BE ACCEPTED IN INTERMEDIATE LOCATIONS OR DISCONNECT HANGERS WITHOUT PRIOR WRITTEN APPROVAL FROM BREVARD COUNTY TRAFFIC OPERATIONS.
24. THE TRAFFIC OPERATIONS MANAGER, OR HIS ASSIGNED REPRESENTATIVE, RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS, IN WRITING.
25. AT LEAST ONE GROUND ROD SHALL BE INSTALLED THROUGH THE CONCRETE CONTROLLER CABINET BASE THROUGH A 1-INCH PVC PIPE. THE ROD SHALL BE CLEARLY VISIBLE INSIDE THE CABINET. CABINET GROUNDING ELECTRODE SHALL BE A MINIMUM OF 50 LINEAR FEET. ALL GROUND ELECTRODE CONNECTIONS ARE TO BE EXOTHERMALLY WELDED AS STATED IN THE FDOT SPECIFICATIONS. ALL GROUND ELECTRODES SHALL BE BONDED TOGETHER TO FORM AN ARRAY. NO BONDS ARE TO BE MADE AT THE CABINET BUSS BAR EXCEPT THE CABINET GROUND AND THE ELECTRICAL SERVICE GROUND. A BREVARD COUNTY INSPECTOR SHALL BE ON SITE WHEN INSTALLED GROUND RODS ARE INSTALLED.
26. ELECTRICAL SERVICES DO NOT REQUIRE METER CANS.
27. SEPARATE PULL BOXES SHALL BE PROVIDED FOR SIGNAL, COMMUNICATION AND POWER CABLES.
28. AN ANTI-SIEZE COMPOUND SHALL BE APPLIED TO THE THREADS OF ALL NUTS, BOLTS, AND ATTACHMENT HARDWARE WHICH ARE EXPOSED TO WEATHER.
29. A CONTACT PASTE SHALL BE APPLIED TO ALL CONNECTIONS INSIDE THE SERVICE DISCONNECT.
30. THE COUNTY SHALL HAVE FIRST RIGHT TO ANY EQUIPMENT DESIGNATED TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL DELIVER ANY CLAIMED EQUIPMENT TO BREVARD COUNTY TRAFFIC OPERATIONS 580 MANOR DRIVE, MERRITT ISLAND, FLORIDA. ANY EQUIPMENT NOT CLAIMED BY BREVARD COUNTY SHALL BE DISPOSED OF PROPERLY BY THE CONTRACTOR, PER FDOT SPECIFICATION.
31. EXISTING SECTION CORNERS, 1/4 SECTION CORNERS, PROPERTY CORNERS, OR MONUMENTS TO BE DISTURBED BY CONSTRUCTION SHALL BE REFERENCED AND RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA.
32. THE CONTRACTOR SHALL PROTECT ALL GEODETIC MONUMENTS. IF ANY MONUMENTS ARE TO BE DISTURBED, THE CONTRACTOR SHALL NOTIFY:
NATIONAL OCEAN SERVICE ADVISOR
BUREAU OF SURVEYING AND MAPPING
3900 COMMONWEALTH BOULEVARD, MS 105
TALLAHASSEE, FL 32303
850-245-2606

33. THE LOCATIONS OF KNOWN UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE ONLY; THE EXACT LOCATION OF UTILITIES SHALL BE DETERMINED BY THE ENGINEER OF RECORD AND VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING, NOTIFYING, AND LOCATING ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. ANY UTILITY RELOCATION REQUIRED AFTER THE NOTICE TO PROCEED WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO COMPENSATION WILL BE CONSIDERED.
34. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES IN THE AREA THAT MAY BE AFFECTED BY THE WORK. THIS IS IN ADDITION TO THE REQUIREMENT OF CONTACTING "SUNSHINE 811" AT (800) 432-4770.

Exhibit B

Brevard County Traffic ITS Fiber Construction, Rehabilitation & Maintenance Contract				
#	Item#	Item Description	Quantity/Unit	Unit Price
1	633-1-10	ITS Fiber Mananagement (ITSFM) Strand Mapping	1 Mile	1,750.00
2	633-1-20	ITS Fiber Mananagement (ITSFM) Design & Permitting	1 Mile	1,750.00
3	633-1-30	ITS Fiber Mananagement (ITSFM) Electronics Asbuils	1 Mile	1,750.00
4	633-1-40	ITS Fiber Mananagement (ITSFM) GPS Surveying	1 Mile	1,750.00
5	530-0-100	Florida PP Services		
6	530-4-101	BICSI Reg Comm Dist Design Services	1 HR	
7	530-5-102	CADD Operator	1 HR	85.29
8	530-6-103	Clerical Support Services	1 HR	
9	530-7-104a	Comm Cable-Electronics Technician (Travel/Standby)	1 HR	46.50
10	530-7-104b	Comm Cable-Electronics Technician (Onsite)	1 HR	
11	530-8-105a	Communication Cable Installer (Travel/Standby)	1 HR	62.00
12	530-8-105b	Communication Cable Installer (Onsite)	1 HR	
13	530-9-106a	Communication Duct Installer (Travel/Standby)	1 HR	62.00
14	530-9-106b	Communication Duct Installer (Onsite)	1 HR	
15	630-5-12-24	Conduit, 2" 10' PVC @ 24", Machine Trench (F&I)	1 LF	
16	630-5-12-36	Conduit, 2" PVC @ 36", Machine Trench (F&I)	1 LF	6.75
17	630-5-13-24	Conduit, 2" PVC @ 24", Hand Trench (F&I)	1 LF	
18	630-5-13-36	Conduit, 2" PVC @ 36", Hand Trench (F&I)	1 LF	8.00
19	630-5-12-ep	Conduit, 2" PVC Additional Pipe in Trench (F&I)	1 LF	
20	630-6-1-25	Innerduct, 1 1/4" Corrugated, Colored (F&I)	1 LF	6.75
21	630-6-41-25	Conduit, Ploving 4W/ 25' HDPE Colored (F&I)	1 LF	3.14
22	630-6-23	MaxCell Placement in Existing 2" Conduit - 2" - 3 Cell (F&I)	1 LF	
23	630-6-53	MaxCell Placement in Existing 3" Conduit - 3" - 3 Cell (F&I)	1 LF	4.94
24	630-6-43	MaxCell Placement in Existing 4" Conduit - 4" - 3 Cell (F&I)	1 LF	
25	630-6-00-18	Cable Direct Bury, Hand Dig @ 18" (Install Only)	1 LF	1.10
26	630-6-00-30	Cable Direct Bury, Plow @ 30" (Install Only)	1 LF	
27	630-6-12-db	Directional Bore, 2" HDPE (F&I)	1 LF	16.10

Exhibit B

28	630-6-14-db	Directional Bore, 2" HDPE, Special Conditions (F&I)	1 LF	18.59
29	630-6-18-db	Directional Bore, 8" Under Waterway <1,000' (F&I)	1 LF	27.05
30	630-6-12-grs	Conduit, 2" GRS (F&I)	1 LF	13.79
31	630-6-14-grs	Conduit, 2" GRS (F&I)	1 LF	14.83
32	630-6-12-grs1	Conduit, 2" Fiberglass Bridge Mount (F&I)	1 LF	29.25
33	630-6-14-grs1	Conduit, 2" Fiberglass Bridge Mount (F&I)	1 LF	31.57
34	630-7-7-MT	Detectable Trace Wire (F&I)	1 LF	1.17
35	630-7-MT	Detectable Marking Tape (F&I)	1 LF	1.35
36	630-7-JL	Jet Line (F&I)	1 LF	1.17
37	630-7-ROW	ROW Delineator Marker Post Orange 6" (F&I)	1 EA	65.00
38	635-8-444	Manhole Concrete 4'x4'x4' Steel Lid (F&I)	1 EA	111.17
39	635-8-232	Handhole, Composite 24" X36"x24" W/ Lid (F&I)	1 EA	178.29
40	635-8-232-1R	Handhole, Composite 24" X36"x24" W/ Lid Traffic Rated (F&I)	1 EA	171.19
41	635-8-121	Pullboxes, Composite 17"x30"x12" W/ Lid (F&I)	1 EA	349.31
42	635-8-121-1R	Pullboxes, Composite 17"x30"x12" W/ Lid Traffic Rated (F&I)	1 EA	349.31
43	633-4-111-12	FO Cable 12F SM LT Aerial (F&I)	1 LF	1.17
44	633-4-111-24	FO Cable 24F SM LT Aerial (F&I)	1 LF	1.59
45	633-4-111-48	FO Cable 48F SM LT Aerial (F&I)	1 LF	2.17
46	633-4-111-72	FO Cable 72F SM LT Aerial (F&I)	1 LF	2.87
47	633-4-111-96	FO Cable 96F SM LT Aerial (F&I)	1 LF	3.22
48	633-4-111-144	FO Cable 144F SM LT Aerial (F&I)	1 LF	3.94
49	633-4-112-12	FO Cable 12F SM ADSS Aerial (F&I)	1 LF	5.13
50	633-4-112-24	FO Cable 24F SM ADSS Aerial (F&I)	1 LF	6.39
51	633-4-112-48	FO Cable 48F SM ADSS Aerial (F&I)	1 LF	7.59
52	633-4-112-72	FO Cable 72F SM ADSS Aerial (F&I)	1 LF	8.87
53	633-4-112-96	FO Cable 96F SM ADSS Aerial (F&I)	1 LF	10.13
54	633-4-112-144	FO Cable 144F SM ADSS Aerial (F&I)	1 LF	11.39
55	633-4-113-12	FO Cable 12F SM LT UG (F&I)	1 LF	1.17
56	633-4-113-24	FO Cable 24F SM LT UG (F&I)	1 LF	1.59
57	633-4-113-48	FO Cable 48F SM LT UG (F&I)	1 LF	2.17
58	633-4-113-72	FO Cable 72F SM LT UG (F&I)	1 LF	2.87

Exhibit B

59	633-4-113-96	FO Cable 96F SM LT UG (F&I)	1 LF	1.92
60	633-4-113-144	FO Cable 144F SM LT UG (F&I)	1 LF	2.29
61	633-4-117-06	FO Cable 6F SM Drop Cable (F&I)	1 LF	1.28
62	633-4-117-12	FO Cable 12F SM Drop Cable (F&I)	1 LF	1.32
63	633-4-115-12	FO Cable 12F SM Riser (F&I)	1 LF	1.82
64	633-4-115-24	FO Cable 24F SM Riser (F&I)	1 LF	2.00
65	633-4-115-48	FO Cable 48F SM Riser (F&I)	1 LF	2.31
66	633-4-115-72	FO Cable 72F SM Riser (F&I)	1 LF	2.49
67	633-4-115-96	FO Cable 96F SM Riser (F&I)	1 LF	3.17
68	633-4-115-144	FO Cable 144F SM Riser (F&I)	1 LF	3.92
69	633-4-116-12	FO Cable 12F SM Plenum (F&I)	1 LF	2.30
70	633-4-116-24	FO Cable 24F SM Plenum (F&I)	1 LF	2.60
71	633-4-116-48	FO Cable 48F SM Plenum (F&I)	1 LF	3.55
72	633-4-116-72	FO Cable 72F SM Plenum (F&I)	1 LF	4.14
73	633-4-116-96	FO Cable 96F SM Plenum (F&I)	1 LF	6.33
74	633-4-116-144	FO Cable 144F SM Plenum (F&I)	1 LF	5.85
75	633-7-151-6PT	FO Cable 6F SM Preterm ST 150' W/ Housing (F&I)	1 EA	507.87
76	633-7-151-12PT	FO Cable 12F SM Preterm ST 150' W/ Housing (F&I)	1 EA	803.61
77	633-7-151-6PT	FO Cable 6F SM Preterm ST 150' W/ Coupler (F&I)	1 EA	779.31
78	633-7-152-12PT	FO Cable 12F SM Preterm ST 150' W/ Coupler (F&I)	1 EA	515.89
79	633-8-12A-1	FO Splice-Term Cabinet, 12F Wall/Rack (F&I)	1 EA	568.13
80	633-8-12B-1	FO Splice-Term Cabinet, 12F Wall/Rack (Furnish Only)	1 EA	179.63
81	633-8-24A-1	FO Splice-Term Cabinet, 24F Wall/Rack (F&I)	1 EA	568.13
82	633-8-24B-1	FO Splice-Term Cabinet, 24F Wall/Rack (Furnish Only)	1 EA	179.63
83	633-8-48A-1	FO Splice-Term Cabinet, 48F Wall/Rack (F&I)	1 EA	601.91
84	633-8-48B-1	FO Splice-Term Cabinet, 48F Wall/Rack (Furnish Only)	1 EA	231.38
85	633-8-72A-1	FO Term Housing 72F Wall/Rack (F&I)	1 EA	625.91
86	633-8-72B-1	FO Term Housing 72F Wall/Rack (Furnish Only)	1 EA	254.67
87	633-8-96A-1	FO Term Housing 96F Wall/Rack (F&I)	1 EA	625.91
88	633-8-96B-1	FO Term Housing 96F Wall/Rack (Furnish Only)	1 EA	254.67
89	633-8-144A-1	FO Splice Housing 48-144F (F&I)	1 EA	239.18
90	633-8-128B	FO Splice Housing 48-144F (Furnish Only)	1 EA	203.31
91	633-8-172A	FO Term Rousing 72 F Wall/Rack (F&I)	1 EA	625.91

Exhibit B

92	633-8-172B	FO Term Housing 72 F Wall/Rack (Furnish Only)	1 EA	254.67
93	633-8-196A	FO Term. Housing 96F Wall/Rack (F&I)	1 EA	625.91
94	633-8-196B	FO Term. Housing 96F Wall/Rack (Furnish Only)	1 EA	254.67
95	633-8-BF-06A	FO Cable Prep Fanout Kit Buffer 6F (F&I)	1 EA	56.81
96	633-8-BF-06B	FO Cable Prep Fanout Kit Buffer 6F (Furnish Only)	1 EA	14.19
97	633-8-BF-12A	FO Cable Prep Fanout Kit Buffer 12F (F&I)	1 EA	57.33
98	633-8-BF-12B	FO Cable Prep Fanout Kit Buffer 12F (Furnish Only)	1 EA	15.67
99	633-8-SF-12A	FO Cable Prep Fanout Kit Spider 12F SM/MM (F&I)	1 EA	70.31
100	633-8-SF-12B	FO Cable Prep Fanout Kit Spider 12F SM/MM (Furnish Only)	1 EA	36.00
101	633-8-913-STA	FO Connector ST SM Unicom (F&I)	1 EA	25.40
102	633-8-913-STB	FO Connector ST SM Unicom (Furnish Only)	1 EA	15.28
103	633-8-913-SCA	FO Connector SC SM Unicom (F&I)	1 EA	25.40
104	633-8-913-SCB	FO Connector SC SM Unicom (Furnish Only)	1 EA	14.08
105	633-8-9-A	FO Jumper, Duplex ST-ST SM 10' (Furnish Only)	1 EA	14.93
106	633-8-9-B	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	14.93
107	633-8-9-D	FO Jumper, Duplex ST-LC SM 10' (Furnish Only)	1 EA	14.93
108	633-8-9-E	FO Jumper, Duplex ST-FC SM 10' (Furnish Only)	1 EA	14.93
109	633-8-9-F	FO Jumper, Duplex SC-SC SM 10' (Furnish Only)	1 EA	14.93
110	633-8-9-G	FO Jumper, Duplex SC-LC SM 10' (Furnish Only)	1 EA	14.93
111	633-8-12A	FO Splice Closure 12F Aerial/UG (F&I)	1 EA	565.95
112	633-8-12B	FO Splice Closure 12F Aerial/UG (Furnish Only)	1 EA	335.23
113	633-8-24A	FO Splice Closure 24F Aerial/UG (F&I)	1 EA	565.95
114	633-8-24B	FO Splice Closure 24F Aerial/UG (Furnish Only)	1 EA	335.23
115	633-8-48A	FO Splice Closure 48F Aerial/UG (F&I)	1 EA	565.95
116	633-8-48B	FO Splice Closure 48F Aerial/UG (Furnish Only)	1 EA	335.23
117	633-8-72A	FO Splice Closure 72F Aerial/UG (F&I)	1 EA	565.95
118	633-8-72B	FO Splice Closure 72F Aerial/UG (Furnish Only)	1 EA	335.23
119	633-8-96A	FO Splice Closure 96F Aerial/UG (F&I)	1 EA	2,305.95
120	633-8-96B	FO Splice Closure 96F Aerial/UG (Furnish Only)	1 EA	335.23
121	633-8-RE	FO Closure Reentry Kit Cable Prep (F&I)	1 EA	223.69
122	633-8-ST-12A	Splice Tray, Fusion Heatshrink 12F 12" (F&I)	1 EA	41.22
123	633-8-ST-12B	Splice Tray, Fusion Heatshrink 12F 12" (Furnish Only)	1 EA	32.33
124	633-8-ST-24A	Splice Tray, Fusion Heatshrink 24F 12" (F&I)	1 EA	38.22

Exhibit B

125	633-8-5T-24B	Splice Tray, Fusion Heatshrink 24F-12" (Furnish Only)	1 EA	18.34
126	633-8-A	Fusion Splice Heat Shrink <1db OSP Includes Pigtail As Needed (F&I)	1 EA	32.73
127	633-8-B	OFDR Test Any Wavelength Bare Fiber FOSSC (Install Only)	1 EA	6.00
128	633-10-1A	Messenger Cable 1/4" (F&I)	1 LF	6.77
129	633-10-20	Remove Messenger Cable 1/4" (Install Only)	1 LF	2.81
130	633-10-B	Pole Attach Loose Tube W/ J-Hook Concrete (F&I)	1 EA	118.25
131	633-10-C	Pole Attach Loose Tube W/ J-Hook Wood (F&I)	1 EA	118.25
132	633-10-D	Place Pole Riser 2" GRS (F&I)	1 LF	13.79
133	633-10-E	Place Riser Guard To 20' (F&I)	1 LF	10.62
134	633-10-F	Place 2" Riser Sealing Bushing 1-3 Hole (F&I)	1 EA	86.00
135	633-10-G	Place 2" Riser Heatshrink (F&I)	1 EA	62.50
136	633-10-145	Wood Pole 45' Utility - For CCTV (F&I)	1 EA	125.00
137	633-10-170	Pressurized Con Pole 70' Utility For CCTV (F&I)	1 EA	16,376.91
138	633-10-600	Down Guy 1/4" 6' Anchor (F&I)	1 EA	312.00
139	633-11-100A	Cat 5E Plenum UTP (avg 150) (F&I)	1 LF	1.31
140	633-11-100B	Cat 5E Plenum UTP (avg 150) (Furnish Only)	1 LF	35
141	633-11-101A	Cat 5E PVC UTP (avg 150) (F&I)	1 LF	1.01
142	633-11-101B	Cat 5E PVC UTP (avg 150) (Furnish Only)	1 LF	35
143	668-110-60	Cabinet 37" X 20" X 17" W/ Conc Base (F&I)	1 EA	174.61
144	668-110-334	Cabinet 35" X 24" X 22" W/ Conc Base (F&I)	1 EA	1,704.50
145	668-110-60	Cabinet 37" X 20" X 17" W/ Conc Base (F&I)	1 EA	174.61
146	668-130-1	Nema 3R 19.7" X 19.7" X 7.9" (F&I)	1 EA	375.21
147	668-130-2	Nema 3R 23.6" X 23.6" X 7.9" (F&I)	1 EA	450.37
148	668-110-6-1	FO Splice Housing Industrial Nema 35 (F&I)	1 EA	375.00
149	668-110-6-2	FO Splice Housing Environmental (F&I)	1 EA	377.59
150	668-110-6-3	FO Splice Housing Cross Connect (F&I)	1 EA	345.31
151	668-336-1	Device Cabinet Type 336 46" X 24" X 24" (F&I)	1 EA	3,764.00
152	668-332-2	Device Cabinet Type 332 66" X 24" X 30" (F&I)	1 EA	3,819.00
153	668-336-3	Device Cabinet Type 336S 48" X 24" X 24" (F&I)	1 EA	3,885.00
154	668-335-4	Detector Cabinet Type VI 104" X 108" X 77" (F&I)	1 EA	7,213.62
155	680-106-1	System UPS 120VAC 125 Managed (F&I)	1 EA	50.05
156	680-106-3	System UPS 120VAC 300 Managed (F&I)	1 EA	88.66
157	680-106-5	System UPS 120VAC 500 Managed (F&I)	1 EA	483.34

Exhibit B

158	680-106-7	System UPS 120VAC 750 Managed (F&I)	1 EA	311.80
159	680-106-15	System UPS 120VAC 1500 Managed (F&I)	1 EA	399.67
160	680-106-22	System UPS 120VAC 2200 Managed (F&I)	1 EA	1,315.60
161	101-1A	Cable Technician (Labor Only) Per FDOT Specifications	1 HR	18.99
162	101-1B	Fiber Technician (Labor Only)	1 HR	71.99
163	101-1C	Mobilization Within 14 Four Hrs (Labor Only) Per FDOT Specifications	1 LS	400.00
164	101-1D	Mobilization Within (24) Twenty-Four Hrs (Labor Only) Per FDOT Specifications	1 LS	403.00
165	101-1E	Mobilization Within 140 Ten Working Days (Labor Only) Per FDOT Specifications	1 LS	315.00
166	782-1-13	ITS CCTV Ptz Camera Assembly Per FDOT Specifications	1 EA	5,123.67
167	782-1-13A	Video Data Serial Converter (F&I)	1 EA	180.00
168	782-1-13B	Copper Data Patch Cables-5 (F&I)	1 EA	12.00
169	782-1-13C	Camera Assembly 36 X G4 Smoked Lens W/ Composite Cable & Gasket (F&I)	1 EA	5,123.67
170	782-1-13D	CCTV Pendant Mount Mastobrac & Neoprene Wrap (F&I)	1 EA	235.00
171	782-1-13F	CCTV Maintenance Unit (Surge Arrestor Panel For Power, Data, Video W/ Interface) (F&I)	1 EA	195.00
172	782-1-13G	Multi-Voltage Power Supply Module (F&I)	1 EA	201.00
173				
174	783-1-111	FO Cable 12F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	1.18
175	783-1-112	FO Cable 48F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	1.72
176	783-1-113	FO Cable 96F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	3.89
177	783-1-121	FO Cable 12F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	1.32
178	783-1-122	FO Cable 48F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	1.46
179	783-1-123	FO Cable 96F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	1.92
180	783-2-31	Fiber Optic Connection Splice Per FDOT Specifications (F&I)	1 EA	31.34
181	783-2-32	FO Connection Termination Per FDOT Specifications (F&I)	1 EA	33.70

Exhibit B

182	783-3-11	FO Splice Enclosure UG (up To 96 Fibers) Per FDOT Specifications (F&I)	1 EA	565.37
183			1 EA	
184	783-3-11b	FO Splice Enclosure ISP Above Ground (up To 96 Fibers) Per FDOT Specifications (F&I)	1 EA	610.23
185	783-3-11c	FO Splice Enclosure Aerial Above Ground (up To 96 Fibers) Per FDOT Specifications (F&I)	1 EA	610.23
186	783-3-12	FO Splice Tray Per FDOT Specifications (F&I)	1 EA	41.22
187	783-3-13	FO Pre-Terminated Connector Assembly Per FDOT Specifications (F&I)	1 EA	14.93
188	783-3-14	FO Buffer Tube Fanout Kit Per FDOT Specifications (F&I)	1 EA	56.81
189	783-3-15	FO Pre-Terminated 12F Patch Panel Per FDOT Specifications (F&I)	1 EA	568.78
190	783-3-17	FO Connector Panel Per FDOT Specifications (F&I)	1 EA	69.58
191	783-4-111	FO Conduit 2" Above Ground Per FDOT Specifications (F&I)	1 LF	13.79
192	783-4-112	FO Conduit 2" UG Per FDOT Specifications (F&I)	1 LF	6.25
193	783-4-112b	FO Conduit 2" UG Additional Pipe Per FDOT Specifications (F&I)	1 LF	6.11
194	783-4-113	FO Conduit 2" Under Pavement Per FDOT Specifications (F&I)	1 LF	17.46
195	783-4-113b	FO Conduit 2" Under Pavement, Additional Pipe Per FDOT Specifications (F&I)	1 LF	2.20
196	783-5-1	FO Pull Box Per FDOT Specifications (F&I)	1 LF	1,087.29
197	783-6-1	FO Splice Box Per FDOT Specifications (F&I)	1 LF	1,691.97
198	783-7-1	FO Pull And Junction Box Per FDOT Specifications (F&I)	1 LF	1,087.29
199	784-1-1	ITS FO Managed Field Ethernet Switch Per FDOT Specifications (F&I)	1 EA	1,524.00
200	784-6-11	ITS Wireless Ethernet Access Point (F&I)	1 EA	2,250.00
201	633-15-101A	Cat 6 Plenum Enhanced (avg 150) (F&I)	1 LF	1.01
202	633-15-101B	Cat 6 Plenum Enhanced (avg 150) (Furnish Only)	1 LF	.35
203	633-15-102A	Cat 6 PVC Enhanced (avg 150) (F&I)	1 LF	1.01
204	633-15-102B	Cat 6 PVC Enhanced (avg 150) (Furnish Only)	1 LF	.35
205	633-15-100	Cat SE 25 Pair PVC Plenum (F&I)	1 LF	2.40
206	633-15-101	Cat SE 25 Pair PVC Riser (F&I)	1 LF	2.40
207	633-15-102	Cat SE 25 Pair PE89 OSP (F&I)	1 LF	2.00

Exhibit B

208	633-15-110	Face Plate 1 Gang Surface Or Flush (F&I)	1 EA	1.50
209	633-15-111	Face Plate 2 Gang Surface Or Flush (F&I)	1 EA	1.75
210	633-15-120	Cat 6 Jacks RJ45 568A/B 1 Port Data (F&I)	1 EA	18.10
211	633-15-121	Cat 6 Jacks RJ45 568A/B 2 Port Data/Voice (F&I)	1 EA	19.40
212	633-15-130	Cat 6 Patch Panel Wall Mount 24 Port (F&I)	1 EA	360.00
213	633-15-131	Cat 6 Patch Panel Rack Mount 48 Port (F&I)	1 EA	240.00
214	633-15-132	Cat 6 Patch Panel Rack Mount 96 Port (F&I)	1 EA	550.00
215	633-15-140	Wire Management Panel 19" X 1.75" (F&I)	1 EA	34.00
216	633-15-141	Wire Management Panel 19" X 5.25" (F&I)	1 EA	47.00
217	633-15-100-1	Cat 6 Patch Cords RJ45 A/B Standard (F&I)	1 EA	1.00
218	633-15-110-1	Cat 5E Punch Block 110 25 Pair (F&I)	1 EA	65.00
219	633-15-141-1	Cat 5E Punch Block 66 25 Pair (F&I)	1 EA	54.00
220	633-15-100-2	Cat 6 CU Drop Certification Test (F&I)	1 EA	2.75
221	633-15-hdw-wr	Cable Support Brackets, Bridge Rings (F&I)	1 EA	5.15
222	633-15-hdw-sp	Cable Raceway, Surface Mount Per Drop (F&I)	1 EA	480.00
223	633-15-102	Conduit, EMT 2" W/ All Fittings (F&I)	1 LF	16.10
224	633-15-13	Conduit, EMT Fire Sleeve 2" (F&I)	1 EA	24.00
225	633-15-14	Conduit, EMT Fire Sleeve 4" (F&I)	1 EA	34.00
226	633-15-ST-12	Cable Tray 12" Ladder Alum Black (F&I)	1 LF	18.00
227	633-15-ST-hdw	Cable Tray 12" Misc. Hardware (F&I)	1 LF	8.50
228	686-101g	Cable Copper 18 Ga (Furnish Only)	1 LF	2.20
229	686-101f	Cable Comp Video Data Power (Furnish Only)	1 LF	1.95
230	633-15-ST-12-1	Cable Management Kit Vertical (F&I)	1 EA	338.00
231	633-15-ST-12-3	Cable Management Kit Horizontal (F&I)	1 EA	41.50
232	633-15-ST-12-2	EIA Rack Free Standing 19" X 84" (F&I)	1 EA	188.20
233	633-15-ST-12-1	EIA Rack Wall Mount Hinged 19" X 36" (Bldg Entry) (F&I)	1 EA	267.00
234	M-2-R	Labor, Level II Tech, W/ Bucket Truck, Regular Time	1 HR	94.69
235	M-2-O	Labor, Level II Tech, W/ Bucket Truck, Overtime	1 HR	113.51
236	M-1-R	Labor, Level I Technician, W/ Bucket Truck Regular Time	1 HR	89.27
237	M-1-O	Labor, Level I Technician, W/ Bucket Truck Overtime	1 HR	107.12

Exhibit B

238	M-H-R	Labor, Helper, Regular Time	1 HR	
239	M-H-O	Labor, Helper, Overtime	1 HR	60.29
				12.35
		Maintenance of Traffic (MOT) - 1%		
		Mobilization - 5%		

Exhibit C

NATURAL DISASTER RESTORATION AND PHWA FEDERAL AID PROJECTS				
Item#	Item Description	Quantity/Unit	Unit Price	
1	ITS Fiber Management (ITSFM) Strand Mapping	1 Mile	1,925.00	
2	ITS Fiber Management (ITSFM) Design & Permitting	1 Mile	1,925.00	
3	ITS Fiber Management (ITSFM) Electronics Assemblies	1 Mile	1,117.00	
4	ITS Fiber Management (ITSFM) GPS Surveying	1 Mile	825.00	
5	Florida PE Services	1 HR	81.50	
6	BICSI Reg Comm Dist Design Services	1 HR	93.82	
7	CADD Operator	1 HR	107.00	
8	Clerical Support Services	1 HR	51.15	
9	Comm Cable Electronics Technician (Travel/Standby)	1 HR	68.20	
10	Comm Cable Electronics Technician (Onsite)	1 HR	68.20	
11	Communication Cable Installer (Travel/Standby)	1 HR	68.20	
12	Communication Cable Installer (Onsite)	1 HR	68.20	
13	Communication Duct Installer (Travel/Standby)	1 HR	68.20	
14	Communication Duct Installer (Onsite)	1 HR	68.20	
15	Conduit 2" PVC @ 24" Machine Trench (F&I)	1 LF	7.10	
16	Conduit, 2" PVC @ 36", Machine Trench (F&I)	1 LF	7.43	
17	Conduit, 2" PVC @ 24" Hand Trench (F&I)	1 LF	8.20	
18	Conduit, 2" PVC @ 36", Hand Trench (F&I)	1 LF	8.80	
19	Conduit, 2" PVC Additional Pipeline Trench (F&I)	1 LF	1.32	
20	Innerduct, 11/4" Corrugated, Colored (F&I)	1 LF	7.43	
21	Conduit, 2" PVC @ 24" Machine Trench (F&I)	1 LF	7.10	
22	MaxCell Placement In Existing 2" Conduit - 2" - 3 Cell (F&I)	1 LF	3.45	
23	MaxCell Placement In Existing 3" Conduit - 3" - 3 Cell (F&I)	1 LF	4.44	
24	MaxCell Placement In Existing 4" Conduit - 4" - 3 Cell (F&I)	1 LF	5.43	
25	Cable Direct Bury, Hand Dig @ 18" (Install Only)	1 LF	1.55	
26	Cable Direct Bury, Plow @ 30" (Install Only)	1 LF	1.21	
27	Directional Bore, 2" HDPE (F&I)	1 LF	17.77	
28	Directional Bore, 2" HDPE, Special Conditions (F&I)	1 LF	80.45	
29	Directional Bore, 8" Under Waterway <1,000LF (F&I)	1 LF	36.86	

Exhibit C

30	630-6-12-grs	Conduit, 2" GRS (F&I)	1 LF	15.17
31	630-6-14-grs	Conduit, 4" GRS (F&I)	1 LF	16.31
32	630-6-12-grs1	Conduit, 2" Fiberglass Bridge Mount (F&I)	1 LF	32.18
33	630-6-14-grs1	Conduit, 4" Fiberglass Bridge Mount (F&I)	1 LF	34.14
34	630-7-TW	Detectable Tracer Wire (F&I)	1 LF	1.30
35	630-7-MT	Detectable Marking Tape (F&I)	1 LF	.39
36	630-7-JL	Jet Line (F&I)	1 LF	.19
37	630-7-ROW	ROW Delineator Marker Post Orange 6" (F&I)	1 EA	11.50
38	635-8-404	Manhole, Concrete 4'x4'x4' Steel Lid (F&I)	1 EA	5,245.31
39	635-8-232	Handhole, Composite 24" X36"x24" W/ Lid (F&I)	1 EA	866.02
40	635-8-232TR	Handhole, Composite 24" X36"x24" W/ Lid Traffic Rated (F&I)	1 EA	866.02
41	635-8-121	Pullboxes, Composite 17"x30"x12" W/ Lid (F&I)	1 EA	381.24
42	635-8-121TR	Pullboxes, Composite 17"x30"x12" W/ Lid Traffic Rated (F&I)	1 EA	381.24
43	633-4-111-12	FO Cable 12F SM LT Aerial (F&I)	1 LF	1.63
44	633-4-111-24	FO Cable 24F SM LT Aerial (F&I)	1 LF	1.75
45	633-4-111-48	FO Cable 48F SM LT Aerial (F&I)	1 LF	1.89
46	633-4-111-72	FO Cable 72F SM LT Aerial (F&I)	1 LF	2.39
47	633-4-111-96	FO Cable 96F SM LT Aerial (F&I)	1 LF	2.45
48	633-4-111-144	FO Cable 144F SM LT Aerial (F&I)	1 LF	3.18
49	633-4-112-12	FO Cable 12F SM ADSS Aerial (F&I)	1 LF	2.63
50	633-4-112-24	FO Cable 24F SM ADSS Aerial (F&I)	1 LF	2.70
51	633-4-112-48	FO Cable 48F SM ADSS Aerial (F&I)	1 LF	2.96
52	633-4-112-72	FO Cable 72F SM ADSS Aerial (F&I)	1 LF	3.70
53	633-4-112-96	FO Cable 96F SM ADSS Aerial (F&I)	1 LF	4.49
54	633-4-112-144	FO Cable 144F SM ADSS Aerial (F&I)	1 LF	5.89
55	633-4-113-12	FO Cable 12F SM LT UG (F&I)	1 LF	1.45
56	633-4-113-24	FO Cable 24F SM LT UG (F&I)	1 LF	1.53
57	633-4-113-48	FO Cable 48F SM LT UG (F&I)	1 LF	1.61
58	633-4-113-72	FO Cable 72F SM LT UG (F&I)	1 LF	1.99
59	633-4-113-96	FO Cable 96F SM LT UG (F&I)	1 LF	2.11
60	633-4-113-144	FO Cable 144F SM LT UG (F&I)	1 LF	2.52
61	633-4-117-06	FO Cable 6F SM Drop Cable (F&I)	1 LF	1.41
62	633-4-117-12	FO Cable 12F SM Drop Cable (F&I)	1 LF	1.45

Exhibit C

63	633-4-115-12	FO Cable 12F SM Riser (F&I)	1 LF	2.00
64	633-4-115-24	FO Cable 24F SM Riser (F&I)	1 LF	2.19
65	633-4-115-48	FO Cable 48F SM Riser (F&I)	1 LF	2.55
66	633-4-115-72	FO Cable 72F SM Riser (F&I)	1 LF	2.74
67	633-4-115-96	FO Cable 96F SM Riser (F&I)	1 LF	3.49
68	633-4-115-144	FO Cable 144F SM Riser (F&I)	1 LF	4.31
69	633-4-116-12	FO Cable 12F SM Plenum (F&I)	1 LF	2.56
70	633-4-116-24	FO Cable 24F SM Plenum (F&I)	1 LF	2.86
71	633-4-116-48	FO Cable 48F SM Plenum (F&I)	1 LF	3.90
72	633-4-116-72	FO Cable 72F SM Plenum (F&I)	1 LF	4.55
73	633-4-116-96	FO Cable 96F SM Plenum (F&I)	1 LF	5.23
74	633-4-116-144	FO Cable 144F SM Plenum (F&I)	1 LF	6.12
75	633-7-151-6PT	FO Cable 6F SM Preterm ST 150' W/ Housing (F&I)	1 EA	626.86
76	633-7-151-12PT	FO Cable 12F SM Preterm ST 150' W/ Housing (F&I)	1 EA	883.97
77	633-7-152-6PT	FO Cable 6F SM Preterm ST 150' W/ Coupler (F&I)	1 EA	428.24
78	633-7-152-12PT	FO Cable 12F SM Preterm ST 150' W/ Coupler (F&I)	1 EA	567.48
79	633-8-12A-1	FO Splice-Term Cabinet, 12F Wall/Rack (F&I)	1 EA	625.66
80	633-8-12B-1	FO Splice-Term Cabinet, 12F Wall/Rack (Furnish Only)	1 EA	197.59
81	633-8-24A-1	FO Splice-Term Cabinet, 24F Wall/Rack (F&I)	1 EA	625.66
82	633-8-24B-1	FO Splice-Term Cabinet, 24F Wall/Rack (Furnish Only)	1 EA	197.59
83	633-8-48A-1	FO Splice-Term Cabinet 48F Wall/Rack (F&I)	1 EA	662.13
84	633-8-48B-1	FO Splice-Term Cabinet 48F Wall/Rack (Furnish Only)	1 EA	243.51
85	633-8-72A1	FO Term Housing 72F Wall/Rack (F&I)	1 EA	688.50
86	633-8-72B1	FO Term Housing 72F Wall/Rack (Furnish Only)	1 EA	280.14
87	633-8-96A-1	FO Term. Housing 96F Wall/Rack (F&I)	1 EA	688.50
88	633-8-96B-1	FO Term. Housing 96F Wall/Rack (Furnish Only)	1 EA	280.14
89	633-8-128A	FO Splice Housing 48-144F (F&I)	1 EA	318.43
90	633-8-128B	FO Splice Housing 48-144F (Furnish Only)	1 EA	222.54
91	633-8-172A	FO Term Housing 72 F Wall/Rack (F&I)	1 EA	688.50
92	633-8-172B	FO Term Housing 72 F Wall/Rack (Furnish Only)	1 EA	280.14
93	633-8-196A	FO Term. Housing 96F Wall/Rack (F&I)	1 EA	688.50
94	633-8-196B	FO Term. Housing 96F Wall/Rack (Furnish Only)	1 EA	280.14
95	633-8-BF-06A	FO Cable Prep Fanout Kit Buffer 6F (F&I)	1 EA	62.49
96	633-8-BF-06B	FO Cable Prep Fanout Kit Buffer 6F (Furnish Only)	1 EA	15.61
97	633-8-BF-12A	FO Cable Prep Fanout Kit Buffer 12F (F&I)	1 EA	63.06

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98	633-8-BF-12B	FO Cable Prep Fanout Kit Buffer 12F (Furnish Only)	1 EA	17.24
99	633-8-SF-12A	FO Cable Prep Fanout Kit Spider 12F SM/MM (F&I)	1 EA	11.34
100	633-8-SF-12B	FO Cable Prep Fanout Kit Spider 12F SM/MM (Furnish Only)	1 EA	39.60
101	633-8-913-STA	FO Connector ST SM Unicom (F&I)	1 EA	27.94
102	633-8-913-STB	FO Connector ST SM Unicom (Furnish Only)	1 EA	16.81
103	633-8-913-SCA	FO Connector SC SM Unicom (F&I)	1 EA	27.94
104	633-8-913-SCB	FO Connector SC SM Unicom (Furnish Only)	1 EA	15.49
105	633-8-9-A	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
106	633-8-9-B	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
107	633-8-9-D	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
108	633-8-9-E	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
109	633-8-9-F	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
110	633-8-9-G	FO Jumper, Duplex ST-SC SM 10' (Furnish Only)	1 EA	6.42
111	633-8-12A	FO Splice Closure 12F Aerial/UG (F&I)	1 EA	622.55
112	633-8-12B	FO Splice Closure 12F Aerial/UG (Furnish Only)	1 EA	368.75
113	633-8-24A	FO Splice Closure 24F Aerial/UG (F&I)	1 EA	622.55
114	633-8-24B	FO Splice Closure 24F Aerial/UG (Furnish Only)	1 EA	368.75
115	633-8-48A	FO Splice Closure 48F Aerial/UG (F&I)	1 EA	622.55
116	633-8-48B	FO Splice Closure 48F Aerial/UG (Furnish Only)	1 EA	368.75
117	633-8-72A	FO Splice Closure 72F Aerial/UG (F&I)	1 EA	622.55
118	633-8-72B	FO Splice Closure 72F Aerial/UG (Furnish Only)	1 EA	368.75
119	633-8-96A	FO Splice Closure 96F Aerial/UG (F&I)	1 EA	622.55
120	633-8-96B	FO Splice Closure 96F Aerial/UG (Furnish Only)	1 EA	368.75
121	633-8-RE	FO Closure Reentry Kit Cable Prep (F&I)	1 EA	246.06
122	633-8-ST-12A	Splice Tray, Fusion Heatshrink 12F 12" (F&I)	1 EA	45.34
123	633-8-ST-12B	Splice Tray, Fusion Heatshrink 12F 12" (Furnish Only)	1 EA	35.57
124	633-8-ST-24A	Splice Tray, Fusion Heatshrink 24F 12" (F&I)	1 EA	42.04
125	633-8-ST-24B	Splice Tray, Fusion Heatshrink 24F 12" (Furnish Only)	1 EA	20.19
126	633-8-A	Fusion Splice Heat Shrink < 1db OSP Includes Pigtail As Needed (F&I)	1 EA	36.00
127	633-8-B	OTDR Test Any Wavelength Bare Fiber FOSG (Install Only)	1 EA	6.60
128	633-10-1A	Messenger Cable 1/4" (F&I)	1 LF	1.95
129	633-10-20	Remove Messenger Cable 1/4" (Install Only)	1 LF	.98
130	633-10-B	Pole Attach Loose Tube W/ J-Hook Concrete (F&I)	1 EA	130.08
131	633-10-C	Pole Attach Loose Tube W/ J-Hook Wood (F&I)	1 EA	130.08
132	633-10-D	Place Pole Riser 2" GRS (F&I)	1 LF	15.17

Exhibit C

133	633-10-E	Place Riser U-Guard To 20" (F&I)	1 LF	113
134	633-10-F	Place 2" Riser Sealing Bushing 1-3 Hole (F&I)	1 EA	93.50
135	633-10-G	Place 2" Riser Heatshrink (F&I)	1 EA	90.75
136	633-10-145	Wood Pole 45' Utility - For CCTV (F&I)	1 EA	797.50
137	633-10-170	Pressurized Con. Pole 70' Utility For Conduit (F&I)	1 EA	1,411.00
138	633-10-600	Down Guy 1/4" 6' Anchor (F&I)	1 EA	343.20
139	633-11-100A	Cat 5E Plenum UTP (avg 150) (F&I)	1 LF	11
140	633-11-100B	Cat 5E Plenum UTP (avg 150) (Furnish Only)	1 LF	39
141	633-11-101A	Cat 5E PVC UTP (avg 150) (F&I)	1 LF	111
142	633-11-101B	Cat 5E PVC UTP (avg 150) (Furnish Only)	1 LF	39
143	668-110-60	Cabinet 37" X 20" X 17" W/ Conc Base (F&I)	1 EA	1,153.95
144	668-110-334	Cabinet 35" X 24" X 22" W/ Conc Base (F&I)	1 EA	1,874.95
145	668-110-60	Cabinet 37" X 20" X 17" W/ Conc Base (F&I)	1 EA	1,153.95
146	668-130-1	Nema 3R 19.7" X 19.7" X 7.9" (F&I)	1 EA	412.13
147	668-130-2	Nema 3R 23.6" X 23.6" X 7.9" (F&I)	1 EA	445.41
148	668-110-6-1	FO Splice Housing Industrial Nema 3S (F&I)	1 EA	412.50
149	668-110-6-2	FO Splice Housing Environmental (F&I)	1 EA	415.35
150	668-110-6-3	FO Splice Housing Gross Connect (F&I)	1 EA	379.84
151	668-336-1	Device Cabinet Type 336 46" X 24" X 24" (F&I)	1 EA	4,140.40
152	668-332-2	Device Cabinet Type 332 66" X 24" X 30" (F&I)	1 EA	4,200.90
153	668-336S-3	Device Cabinet Type 336S 48" X 24" X 24" (F&I)	1 EA	4,273.50
154	668-335-4	Detector Cabinet Type VI 104" X 108" X 77" (F&I)	1 EA	7,934.98
155	680-106-1	System UPS 120VAC 300 Managed (F&I)	1 EA	55.06
156	680-106-3	System UPS 120VAC 300 Managed (F&I)	1 EA	97.53
157	680-106-5	System UPS 120VAC 500 Managed (F&I)	1 EA	531.61
158	680-106-7	System UPS 120VAC 750 Managed (F&I)	1 EA	408.98
159	680-106-15	System UPS 120VAC 1500 Managed (F&I)	1 EA	439.15
160	680-106-22	System UPS 120VAC 2200 Managed (F&I)	1 EA	1,447.16
161	101-1A	Cable Technician (Labor Only) Per FDOT Specifications	1 HR	73.89
162	101-1B	Fiber Technician (Labor Only)	1 HR	79.19
163	101-1C	Mobilization Within (4) Four Hrs (Labor Only) Per FDOT Specifications	1 LS	470.00
164	101-1D	Mobilization Within (24) Twenty-Four Hrs (Labor Only) Per FDOT Specifications	1 LS	443.30
165	101-1E	Mobilization Within (10) Ten Working Days (Labor Only) Per FDOT Specifications	1 LS	236.50

Exhibit C

166	782-1-13	ITS CCTV PTZ Camera Assembly Per FDOT Specifications	1 EA	5,636.04
167	782-1-13A	Video Data Serial Converter (F&I)	1 EA	148.00
168	782-1-13B	Copper Data Patch Cables 5 (F&I)	1 EA	13.20
169	782-1-13C	Camera Assembly 36 X G4 Smoked Lens W/ Composite Cable & Gasket (F&I)	1 EA	5,636.04
170	782-1-13D	CCTV Pendant Mount Mastobrace & Neoprene Wrap (F&I)	1 EA	247.50
171	782-1-13F	CCTV Maintenance Unit (Surge Arrestor Panel For Power, Data, Video W/ Interface)	1 EA	214.50
172	782-1-13G	Multi-Voltage Power Supply Module (F&I)	1 EA	211.70
173				
174	783-1-111	FO Cable 12F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	1.63
175	783-1-112	FO Cable 48F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	1.89
176	783-1-113	FO Cable 96F SM LT Aerial Per FDOT Specifications (F&I)	1 LF	2.18
177	783-1-121	FO Cable 12F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	1.45
178	783-1-122	FO Cable 48F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	1.61
179	783-1-123	FO Cable 96F SM LT UG W/ Tracer Wire Per FDOT Specifications (F&I)	1 LF	2.11
180	783-2-31	Fiber Optic Connection Splice Per FDOT Specifications (F&I)	1 EA	34.47
181	783-2-32	FO Connection Termination Per FDOT Specifications (F&I)	1 EA	37.06
182	783-3-11	FO Splice Enclosure UG (up to 96 Fibers) Per FDOT Specifications (F&I)	1 EA	621.91
183			1 EA	
184	783-3-11b	FO Splice Enclosure ISP Above Ground (up to 96 Fibers) Per FDOT Specifications (F&I)	1 EA	671.25
185	783-3-11c	FO Splice Enclosure Aerial Above Ground (up to 96 Fibers) Per FDOT Specifications	1 EA	671.25
186	783-3-12	FO Splice Tray Per FDOT Specifications (F&I)	1 EA	45.34
187	783-3-13	FO Pre-Terminated Connector Assembly Per FDOT Specifications (F&I)	1 EA	16.42
188	783-3-14	FO Buffer Tube Fanout Kit Per FDOT Specifications (F&I)	1 EA	62.19
189	783-3-15	FO Pre-Terminated 12F Patch Panel Per FDOT Specifications (F&I)	1 EA	625.66
190	783-3-17	FO Connector Panel Per FDOT Specifications (F&I)	1 EA	76.53
191	783-4-111	FO Conduit 2" Above Ground Per FDOT Specifications (F&I)	1 LF	15.17
192	783-4-112	FO Conduit 2" UG Per FDOT Specifications (F&I)	1 LF	6.88
193	783-4-112b	FO Conduit 2" UG Additional Pipe Per FDOT Specifications (F&I)	1 LF	1.22
194	783-4-113	FO Conduit 2" Under Pavement Per FDOT Specifications (F&I)	1 LF	19.21
195	783-4-113b	FO Conduit 2" Under Pavement, Additional Pipe Per FDOT Specifications (F&I)	1 LF	2.95
196	783-5-1	FO Pull Box Per FDOT Specifications (F&I)	1 LF	646.02
197	783-6-1	FO Splice Box Per FDOT Specifications (F&I)	1 LF	1,861.17
198	783-7-1	FO Pull And Junction Box Per FDOT Specifications (F&I)	1 LF	1,916.02
199	784-1-1	ITS FO Managed Field Ethernet Switch Per FDOT Specifications (F&I)	1 EA	1,616.40

Exhibit C

200	784-6-11	ITS Wireless Ethernet Access Point (F&I)	1 EA	2475.00
201	633-15-101A	Cat 6 Plenum Enhanced (avg 150) (F&I)	1 LF	1.11
202	633-15-101B	Cat 6 Plenum Enhanced (avg 150) (Furnish Only)	1 LF	0.39
203	633-15-102A	Cat 6 PVC Enhanced (avg 150) (F&I)	1 LF	1.11
204	633-15-102B	Cat 6 PVC Enhanced (avg 150) (Furnish Only)	1 LF	0.39
205	633-15-100	Cat 5E 25 Pair PVC Plenum (F&I)	1 LF	2.64
206	633-15-101	Cat 5E 25 Pair PVC Riser (F&I)	1 LF	2.64
207	633-15-102	Cat 5E 25 Pair P89 OSP (F&I)	1 LF	2.80
208	633-15-110	Face Plate 1 Gang Surface Or Flush (F&I)	1 EA	1.65
209	633-15-111	Face Plate 2 Gang Surface Or Flush (F&I)	1 EA	1.93
210	633-15-120	Cat 6 Jacks RJ45 568A/B 1 Port Data (F&I)	1 EA	19.91
211	633-15-121	Cat 6 Jacks RJ45 568A/B 2 Port Data/Voice (F&I)	1 EA	21.34
212	633-15-130	Cat 6 Patch Panel Wall Mount 24 Port (F&I)	1 EA	396.00
213	633-15-131	Cat 6 Patch Panel Rack Mount 48 Port (F&I)	1 EA	484.00
214	633-15-132	Cat 6 Patch Panel Rack Mount 96 Port (F&I)	1 EA	605.00
215	633-15-140	Wire Management Panel 19" X 1.75" (F&I)	1 EA	37.40
216	633-15-141	Wire Management Panel 19" X 5.25" (F&I)	1 EA	51.70
217	633-15-100-1	Cat 6 Patch Cords RJ45 A 6 Standard (F&I)	1 EA	13.30
218	633-15-110-1	Cat 5E Punch Block 110 25 Pair (F&I)	1 EA	11.50
219	633-15-111-1	Cat 5E Punch Block 66 25 Pair (F&I)	1 EA	64.90
220	633-15-100-2	Cat 6 CU Drop Certification Test (F&I)	1 EA	3.03
221	633-15-hdw-b	Cable Support Brackets, Bridle Rings (F&I)	1 EA	5.67
222	633-15-hdw-sp	Cable Raceway, Surface Mount Per Drop (F&I)	1 EA	528.00
223	633-15-12	Conduit, EMT 2" W/ All Fittings (F&I)	1 LF	18.59
224	633-15-13	Conduit, EMT Fire Sleeve 2" (F&I)	1 EA	26.40
225	633-15-14	Conduit, EMT Fire Sleeve 4" (F&I)	1 EA	31.90
226	633-15-ST-12	Cable Tray 12" Ladder Alum Black (F&I)	1 LF	19.80
227	633-15-ST-hdw	Cable Tray 12" Misc. Hardware (F&I)	1 LF	2.75
228	686-101g	Cable Copper 18-Ga (Furnish Only)	1 LF	2.22
229	686-101f	Cable Comp Video Data Power (Furnish Only)	1 LF	2.15
230	633-15-ST-12-4	Cable Management Kit Vertical (F&I)	1 EA	360.80
231	633-15-ST-12-3	Cable Management Kit Horizontal (F&I)	1 EA	45.65

Exhibit C

232	633-15-ST-12-2	EIA Rack Free Standing 19' X 84" (F&I)	1 EA	207.02
233	633-15-ST-12-1	EIA Rack Wall Mount Hinged 19' X 36" (Bldg Entry) (F&I)	1 EA	293.70
234	M-2-R	Labor, Level II Tech, W/ Bucket Truck, Regular Time	1 HR	104.05
235	M-2-O	Labor, Level II Tech, W/ Bucket Truck, Overtime	1 HR	124.86
236	M-1-R	Labor, Level II Technician, W/ Bucket Truck, Regular Time	1 HR	98.20
237	M-1-O	Labor, Level II Technician, W/ Bucket Truck, Overtime	1 HR	117.24
238	M-H-R	Labor, Helper, Regular Time	1 HR	66.22
239	M-H-O	Labor, Helper, Overtime	1 HR	79.58
240	SU-R	Labor, Field Supervisor, Regular Time	1 HR	81.12
241	SU-O	Labor, Field Supervisor, Overtime	1 HR	121.68
		Maintenance of Traffic (MOT) - 1%		
		Mobilization - 5%		

Does your company accept Automated Clearing House (ACH) Payments? ☒ Yes / ☐ No

PROMPT PAYMENT

Brevard County shall remit payment in accordance with the Florida Prompt Payment Act, Florida Statutes section 218.70. Bidders may offer cash discounts for prompt payment but they will not be considered in determination of award. If a bidder offers a discount, it is understood that the discount time will be from the date of satisfactory delivery, at the place of acceptance, and receipt of correct invoice, at the office specified, whichever occurs last.

* If Prompt Payment Discount is offered please state discount and terms:

ADDENDUM ACKNOWLEDGMENT:

Add. No. 1 Dated 4/8/15 / Add. No. 2 Dated 4/13/15

EXHIBIT "D"
SCOPE OF SERVICES

EMERGENCY TRAFFIC SIGNAL REPAIR

1.0 GENERAL

This statement of work describes and defines the services which are required for the execution of traffic signal repair/replacement at signalized intersections on major roadway corridors in the Florida Department of Transportation (FDOT) District 5, District-wide (Brevard).

Provide all labor, equipment, and materials to repair/replace any damaged signal installations including any MOT or Mobilization costs. All signal repair/replacement work performed under this contract shall be in accordance with the current version of the FDOT Standard Specifications and Specification for this Contract, Design Standards, Qualified Product List (QPL), Approved Product List (APL), or to the pre-event condition as directed by the Engineer.

The FDOT, at its sole discretion, may elect to enter into additional contract(s) with other Contractor(s). The work will begin upon written authorization by the FDOT. No guarantee of minimum or maximum amount of work per bid item is made by the FDOT under this contract. All services performed under this contract shall be in accordance with applicable Federal and State law, and environmental regulations.

The prime contractor must be pre-qualified with the FDOT in Traffic Signals or have been actively engaged in the business of roadway maintenance and/or construction performing traffic signal repairs for a minimum of three years. A Reference Form is provided in the bid documents for the bidder to provide a minimum of three references for which your company has performed single and multi post sign repair work with the last three years. All references will be checked and a bid proposal may be considered non-responsive if the above information is not provided with your bid submittal.

The prime contractor will be required to perform at least 30% of the work with its own forces.

Supply a letter to the Department upon execution of this agreement, from a surety authorized to do business in the State of Florida, verifying the contractor is bondable in the State of Florida. Within five (5) days after commencement of any services pursuant to this agreement and at all times during the term hereof, including renewals and extensions, the vendor will supply to the FDOT and keep in force a performance and payment bond (as required in Article 3-5.1 of the Division 1 Specification for this Contract). This bond shall be on the form provided by the Department and provided by a surety authorized to do business in the State of Florida, payable to the Department.

Once executed, the contract is valid for three (3) years from date of award. This Contract may be renewed for up to two (2) additional one (1) year periods up to a total contract length of five (5) years (original term plus renewals).

Wage Rate Provision

For this Contract, payment of predetermined minimum wages applies.

The U.S. Department of Labor Wage Rates applicable to this Contract are listed in Wage Rate Decision Number(s) FL *(Insert Appropriate Number(s) as determined by the District Contract Compliance Manager)*, as modified up through ten days prior to the opening of bids. Obtain the applicable General Decision(s) (Wage Tables) through the Department's website and ensure that employees receive the minimum wages applicable. Review the General Decisions for all classifications necessary to complete the project. If additional classifications are needed, request them through the Engineer's office.

When multiple wage tables are assigned to a Contract, general guidance of their use and examples of applicability are available on the Department's website. Contact the Department's Wage Rate Coordinator before bidding if there are any questions concerning the applicability of multiple wage tables. The URL for obtaining the Wage Rate Decisions is www.dot.state.fl.us/construction/wage.htm.

Contact the Department's Wage Rate Coordinator at (850) 414-4251 if the Department's website cannot be accessed or there are questions.

In addition to the criteria outlined in the Wage Rate Provision above, the Contractor shall meet the criteria as outlined in the Terms for Federal Aid Contracts (Appendix I).

2.0 SERVICES TO BE PROVIDED BY THE CONTRACTOR

The signal repair/replacement services shall be performed by the Contractor in coordination with the FDOT District 5, personnel or their designated representative. Some intersections may require signal repair/replacement other intersections may not.

2.1 Signal Repair Services

- Provide labor, equipment and/or materials necessary to perform emergency traffic signal repairs/replacement on signal installations as directed by the FDOT or its designated representative (this will include the removal of all temporary STOP Signs as directed). The signal repairs/replacement may be identified in two levels to include the following:
 - a. Level 1 – The repairs/replacement will include a functioning signalized intersection with a minimum of one functioning overhead signal indication per approach. Including removing any Signal debris from intersection.

- b. Level 2 – The repairs/replacement will include, returning the signalized intersection to pre-event conditions and functionality as per current applicable standards.
- Provide maintenance of traffic using current FDOT Design Standards and/or Manual of Uniform Traffic Control Devices (MUTCD) and FDOT Standard Specifications.
- Repair/replace installations as directed by the FDOT or its designated representative.
- Provide a means to measure and certify all work to the FDOT or their designated representative. Take (time and date stamped) digital pictures before and after work and submit these files/pictures with each daily work log, etc.

3.0 SERVICE TO BE PROVIDED BY THE FDOT OR THEIR DESIGNATED REPRESENTATIVE

3.1 Signal Repair Services

- FDOT shall identify and prioritize work on all major roadway corridors (primary and secondary roads) in FDOT District 5, District-wide (Brevard).
- FDOT shall provide inspection for all contractor operations. Field Inspectors will be provided in sufficient numbers to adequately monitor all field operations.

4.0 PAYMENT

4.1 Signal Repair Services

- Payment for signal repair work will be made in accordance with the bid items and unit prices shown in Exhibit C.
- The FDOT may provide available signal material/parts to the Contractor. All materials/parts provided by the FDOT for signal repair shall be replaced by the Contractor in kind at no cost to the FDOT within 180 days from the date determined by FDOT recognizing the end of the event. The FDOT may withhold payment for the value of these materials/parts or the Contractor may provide a bond in lieu of withheld payments.
- No quantities are guaranteed and there will be no unit cost adjustment for quantities required over the estimated quantities or under the estimated quantities.
- In the event that the bid items and unit prices in Exhibit C for signal repair services do not adequately address a specific work requirement, the Contractor will abide by Sub-Article 4-3.2.1(a)(b)(c) of Section 4 (Scope of Work) of the FDOT's Specifications for payment of such services.

- The Department, at its sole discretion, may award one or more contracts based on the bids received and the impact of the natural disasters encountered. If more than one award is made, such award will be to the lowest bidder, and then to the next lowest bidder(s) based on availability of the bidders and the bidder's ability to satisfy the needs of the Department at the time contacted.

Exhibit E

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27, and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

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

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project.

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented,

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

AGREEMENT

THIS AGREEMENT, entered into this 21st day of July, 2015 by and between the Board of County Commissioners of Brevard County, Florida, a political subdivision of the State of Florida, hereinafter referred to as "County" and, Precision Contracting Services, Inc., a business having its principal address at 15834 Guild Court, Jupiter, FL 33478, hereinafter referred to as "Contractor".

W I T N E S S E T H :

That in consideration of the mutual covenants contained herein, it is hereby agreed between the parties as follows:

I GENERAL TERMS AND CONDITIONS

1. DEFINITIONS

The following definitions are applicable throughout the agreement.

- a. **County:** The terms "County" and "the County" shall refer to Brevard County, Board of County Commissioners' assigned personnel, or their representatives.
- b. **Contractor:** "Contractor" shall mean an individual, firm, partnership, or corporation, and his, their or its heirs, executors, administrators, successors and assigns or the lawful agent of any such individual, firm, partnership, covenanter or corporation, or his, their or its surety under any contract bond, constituting one of

the principals to the Contract and undertaking to perform the work specified in the design plans and specifications. Where any pronoun is used as a referring to the word "Contractor", it shall mean the Contractor as defined herein.

- c. **Agreement/Contract:** The terms "agreement" and "contract" are used interchangeably throughout this document, which, along with any referenced attachments or specifications, constitutes the entire agreement among the referenced parties.
- d. **Director:** The Brevard County Traffic Operations Program Manager or his/her designee. The Manager will designate the Intelligent Transportation Systems (ITS) personnel point of contact for maintenance, new construction and rehabilitation.
- e. **Maintenance:** Activity required to continue operations or to provide minor modifications to existing traffic Operations ITS capabilities of the fiber optic infrastructure and Network of interconnections. Maintenance includes planned and emergency activities.
- f. **Construction:** Any new fiber optic related work resulting with the installation of new fiber optic cabling, conduit, fiber vaults and including materials and equipment.
- g. **Rehabilitation:** Major upgrade or replacement of existing fiber optic infrastructure and/or systems.

2. UNAUTHORIZED ALIEN WORKERS

Brevard County will not intentionally award publicly-funded contracts to any contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324a(e) (Section 274A(e) of the Immigration and Nationality Act "INA"). The County shall consider the employment by the contractor of unauthorized aliens a violation of Section 274A(e) of the INA. Such violation by the Recipient of the employment provisions contained in Section 274A(e) of the INA shall be grounds for unilateral cancellation of this Agreement by the County. The County expressly requires the contractor and subcontractors performing work or providing services pursuant to this contract utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor and subcontractors during the contract term.

3. PUBLIC ENTITY CRIMES

The Contractor must provide a fully executed Public Entity Crimes Affidavit in accordance with F.S. 287.133(3)(a) within ten (10) days of the date of this Agreement and prior to commencing any work under this Agreement.

4. SCOPE OF WORK

a. Basic Contract

The Contractor as the secondary contractor shall be available on the request of the County to provide

maintenance (including emergency maintenance), rehabilitation, and new construction relating to the Fiber Optic Network and Equipment in the event the primary contractor is unresponsive or unable to provide all the necessary services as required. Such work shall include maintenance, emergency maintenance, rehabilitation, and new construction for items related to Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation & Maintenance. The Fiber Optic Network and Equipment includes, but is not limited to:

- Perform aerial installation of fiber optic cable, span wire and necessary hardware
- Perform underground installation of fiber optic cable and/or tracer wire
- Perform down guy installation.
- Place delineator markers
- Direct other Fiber Optic Cable Installer.
- Install pullboxes and conduit
- Ability to read and comprehend plans
- Perform weekly equipment inspections
- Complete daily reports as required

b. Knowledge, Abilities, and Skills

Proficiency in applying best practices for industry regulations, rules while following state/local ordinances and Building Industry Consulting Service

International (BICSI) structured cabling standards. Proficient with proper aerial and underground installation of communication networks as detailed above while applying safety practices applicable.

c. Natural Disasters

The Contractor as the primary contractor shall be available on the request of the County to provide services related to Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Project. This contract is to provide the County with a means of restoring to an operational condition existing fiber optics and ITS communications systems damaged during any widespread disaster the County may endure, in accordance with the Local Agency Contracting Requirements for the FHWA Emergency Relief Program, Exhibit E, FHWA-1273. The scope of services for this project includes providing labor, equipment, and materials to repair any damaged fiber or span-wire and/or pole or underground conduit, provide emergency power and restore ITS Network communications. All work performed under this contract shall be in accordance with the latest version of the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions, Exhibit A attached hereto and incorporated herein and shall be FDOT approved when applicable. In the event of conflicting specifications,

the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions shall govern. Payments shall be in accordance with the Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair.

d. **FHWA/FEDERAL AID ELIGIBLE PROJECTS**

This contract is to provide the County with a means to perform work on projects that are eligible for FHWA/Federal Aid, in accordance with the Local Agency Contracting Requirements for the FHWA Emergency Relief Program, Exhibit E, FHWA-1273. The scope of services for this work includes providing labor, equipment and materials to construct the proposed improvements. All work performed under this contract shall be in accordance with the latest version of the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions, and shall be FDOT approved when applicable. Additionally, equipment shall adhere to Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions. In the event of conflicting specifications, the Brevard County Traffic Operations Intelligent Transportation Systems Specifications and Technical Special Provisions shall govern. Payments shall be in accordance with Exhibit C,

Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair respectively attached hereto and incorporated herein.

e. Performance Period

Because of the public safety implications, the response time is an essential element of the services for tasks included in this contract. The specific performance periods for various categories are listed below:

1. Network Outages

a) When contacted by the Brevard County Traffic Operations Manager or their representatives about a suspected fiber outage the Contractor shall have one (1) hour to respond by telephone or email with acknowledgement of notification of suspected outage and explain what steps will be taken to rectify the outage. Begin to prepare materials and equipment to perform all tests necessary to determine the location of the outage. This includes troubleshooting patch panels, patch cables, splice enclosures, splice trays, splices, sho-shoes, optics, terminations (pigtails or buffer tubes fan out kits), and any such items as it relates to the ITS Network. Once the cause of the outage is determined; the Contractor shall determine a fix and propose it to the Traffic Operations Manager or their representative.

b) Outages determined through troubleshooting by the Contractor or by Traffic Operation ITS personnel that result in more than one local hub to be out shall be repaired via Emergency Response. Upon notification or recognition of an outage requiring an Emergency Response the Contractor shall respond to the site with the required equipment to repair the facility within four (4) hours unless otherwise directed by the Traffic Operations Manager or their representative. The notification not to respond within the required four (4) hours must be received via email or phone. Once onsite, the contractor shall show continuous pursuit of effort to complete the repair. The Contractor shall take corrective actions to have the system fully operational before leaving the site. If the Contractor determines and the County agrees that this type of failure will require additional time and/or equipment, then the Contractor will provide an estimate of the man-hours and materials costs required to complete the work and gain approval of the Traffic Operations Manager or their representative prior to commencing any repairs.

c) Any materials and equipment furnished by the Contractor shall be equal to or better in quality than that being replaced and shall be approved by the

Traffic Operations Manager or their representative prior to purchase by the Contractor.

d) The County will make payment for services provided for Emergency Maintenance per work upon acceptance of the work and the invoice. The payment to the Contractor will reflect the actual hours and materials as documented by invoice and as approved by the County.

2. Preventive Maintenance

a) The Contractor shall provide complete documentation of the OTDR shots in a paper and electronic format. The electronic format shall include the software to view the OTDR shots.

Copies of all projects documentation shall be delivered to the Department, if requested in writing prior to the final payment to the Contractor by the County.

3. Special Projects

a) The Contractor will upon written authorization by the Traffic Operations Manager or their representative and upon mutual agreement as to equipment and time, perform any additional services not otherwise identified in this Scope, as may be required by the County in connection with this Contract at a negotiated Maximum limiting amount price based on pre-agreed man-hour rates, hours to complete the work and parts costs, solely at the County's discretion. The payment to the

Contractor will reflect the actual hours and materials as documented by the invoice and as approved by the Traffic Operations Manager or their representative.

5. TERM OF AGREEMENT

This agreement shall be for a term of three (3) years with two one-year renewal options.

6. REPRESENTATION OF CONTRACTOR

The Contractor must present sufficient evidence that it is a Florida Department of Transportation pre-qualified contractor and certified in the fields of fiber optics for ITS Level II Field or equivalent, and the Contractor must maintain the qualifications throughout the term of the contract.

7. PERFORMANCE STANDARDS

All materials and installations shall be in accordance with the latest versions and updates of the following technical specifications:

a. Florida Department of Transportation:

1. Standard Specifications for Road & Bridge Construction,
2. Design Standards for Design, Construction, Maintenance, and Utility Operations on the State Highway System.
3. Manual on Uniform Minimum Standards for Design, Construction and Maintenance of Streets and Highways.

b. Federal Highway Administration:

1. Manual on Uniform Traffic Control Devices.

c. Brevard County:

1. Intelligent Transportation Systems Specifications and Technical Special Provisions, June 22, 2015,
Exhibit A.
2. Supplemental Specifications for Traffic Signalization and Highway Lighting, March 26, 2015,
Exhibit A.
3. Signalization General Notes, January 16, 2015,
Exhibit A.

Any fiber related products utilized must be listed in the current FDOT "Approved Product List of FDOT Probationary ITS approved product list" if the device category exists.

In the event of conflicting specifications, the resolution shall be at the discretion of the Traffic Operations Manager. In those cases where the Brevard County specifications are more restrictive, the Brevard County specifications shall govern, except as may be otherwise determined by the Manager.

The County may, at its discretion, modify and/or exceed performance standards based on engineering judgment or maintenance considerations. In those cases where the County requests a performance level significantly in excess of the specifications, the Contractor shall be entitled to request compensation. Additional compensation must be requested by the

Contractor and approved by the Manager prior to commencing the work.

8. BOND

Before beginning any work under this contract, the contractor shall furnish a surety (performance) bond in the amount of fifty thousand dollars (\$50,000.00), which bond shall guarantee the faithful performance of any and all duties and materials or labor under this agreement.

9. LIQUIDATED DAMAGES - MAINTENANCE

Time of performance is critical to the County with regard to all scheduling of work provisions of this Agreement. As such, In the event of delay, liquidated damages may be assessed as follows:

Original Contract Amount	Daily Charge Per
<u>Per Project</u>	<u>Calendar Day</u>
\$50,000 and Under	\$2,000

The amount shall be automatically deducted from the contract price for every "day" (24 hours) that work is delayed past the date of completion specified on the work order. If the Contractor believes that any such delay has been caused by a circumstance beyond its reasonable control, Contractor must request, in writing, to the Traffic Operations Manager a Request for Waiver of the respective delay. Each such Request for Waiver must be received by the Traffic Operations Manager within forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay. Unless an extension of

time is granted for good cause by the Traffic Operations Manager, failure to submit such written Request for Waiver within the forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay shall bar the Contractor from claiming any waiver of that delay by any means whatsoever. The Traffic Operations Manager shall respond to the Request for Waiver in writing within five (5) working days of receipt of the Request for Waiver. Each decision of the County with regard to granting, denying, or partially granting or denying the Request for Waiver shall be final, but each such Request must be reviewed on its merits by the Traffic Operations Manager pursuant to the terms and conditions of this Agreement. Although no such Request will be unreasonably denied, the burden of persuasion rests with the Contractor. From time to time, usually not less than each thirty (30) days, and solely as a courtesy to the Contractor, the County may notify the Contractor of the then total sum of delay damages to be deducted from the contract price.

LIQUIDATED DAMAGES - EMERGENCY RESPONSE

Public safety is of the utmost importance during emergency replacement of signals destroyed by crashes or acts of God. As such, liquidated damages may be assessed after any four (4) hours that the Contractor fails to promptly commence work after having received a verbal Notice to Proceed in an emergency situation. After four (4) hours, the county reserves the right to procure the services of another contractor to restore the

intersection to a safe operation. As such, in the event of a delay, liquidated damages may be assessed as follows:

- \$5,000 + additional costs, in excess of current contract prices, the County incurs to bring the intersection back to safe operation.

Post commencement, the Contractor shall complete the emergency restorations within a reasonable period of time. If the Contractor believes that any such delay has been caused by a circumstance beyond its reasonable control, Contractor must request, in writing, to the Traffic Operations Manager a Request for Waiver of the respective delay. Each such Request for Waiver must be received by the Traffic Operations Manager within forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay. Unless an extension of time is granted for good cause by the Traffic Operations Manager, failure to submit such written Request for Waiver within the forty-eight (48) hours of the start of the event that is alleged to be the cause of that delay shall bar the Contractor from claiming any waiver of that delay by any means whatsoever. The Traffic Operations Manager shall respond to the Request for Waiver in writing within five (5) working days of receipt of the Request for Waiver. Each decision of the County with regard to granting, denying, or partially granting or denying the Request for Waiver shall be final, but each such Request must be reviewed on its merits by the Traffic Operations Manager pursuant to the terms and conditions of this

Agreement. Although no such Request will be unreasonably denied, the burden of persuasion rests with the Contractor. From time to time, usually not less than each thirty (30) days, and solely as a courtesy to the Contractor, the County may notify the Contractor of the then total sum of delay damages to be deducted from the contract price. In such case, the Contractor shall be liable to the County for all reasonable additional costs occasioned to the County thereby. Liquidated damages will be deducted from any pending work orders which have not been paid.

10. INDEMNIFICATION

The Contractor agrees to indemnify and hold harmless the County and their employees from all claims, losses and expenses, including attorney's fees, arising out of or resulting from the performance of the products or services to be contracted, provided such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease, death or personal injury, or to property damage, including loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor or any of their employees, or arises from a work-related injury to any of the Contractor's employees, any subcontractor, or any of their employees. The Contractor acknowledges receipt of adequate consideration for this agreement.

11. INSURANCE REQUIREMENTS

The Contractor providing services under this Agreement will be required to procure and maintain, at their own expense and without cost to the County, until final acceptance by the County of all products or services covered by the purchase order or contract, the following types of insurance. The policy limits required are to be considered minimum amounts.

General Liability Insurance policy with a \$1,000,000 combined single limit for each occurrence to include the following coverage's: Operations, Products and Completed Operations, Personal Injury, Contractual Liability covering this contract, and "X-C-U" hazards.

Auto Liability Insurance which includes coverage for all owned, non-owned and rented vehicles with a \$1,000,000 combined single limit for each occurrence.

Workers' Compensation and Employers Liability Insurance covering all persons conducting the Contractor's operations on County premises or on behalf of the County in the full amount required by the State of Florida laws.

The Contractor shall provide certificates of insurance to the County demonstrating that the aforementioned insurance requirements have been met prior to the commencement of work under this contract. The General Liability and Auto Liability certificates of insurance shall indicate that the policies have been endorsed to cover the County as an additional insured and

that these policies may not be canceled or modified without thirty (30) days prior written notice to the County.

The insurance coverage's enumerated above constitute the minimum requirements and shall in no way lessen or limit the liability of the Contractor under the terms of the contract. Subcontractor's insurance shall be the responsibility of the Contractor.

12. ATTORNEY'S FEES

In the event of any legal action to enforce the terms of this contract, each party shall bear its own attorney's fees and costs.

13. VENUE

Venue for any legal action brought by any party to this agreement (for the purposes of this clause, this includes any city or municipality who is allowed to utilize the contractor's services under this agreement), to interpret, construe, or enforce this agreement shall be in a court of competent jurisdiction in and for Brevard County, Florida.

14. INDEPENDENT CONTRACTOR

The Contractor shall perform the conditions of this agreement as an independent contractor and nothing contained herein shall be construed to be inconsistent with this relationship or status. Nothing in this agreement shall be in any way construed to constitute the Contractor, or any of its

agents or employees, as an agent, employee or representative of the County.

15. DELEGATION OF WORK

The County reserves the right to ascertain the necessity for Contractor service and shall, at its sole discretion, determine the conditions warranting Contractor response.

16. TERMINATION

- a) The County may, by written notice to the Contractor terminate this agreement or any purchase order issued hereunder, in whole or in part, at any time, either for the County's convenience or because of the failure of the Contractor to fulfill its agreement obligations. Upon receipt of such notice, the Contractor shall immediately discontinue all services affected, unless the notice directs otherwise, and deliver to the County all data, drawings, specifications, reports, estimates, summaries and any and all such other information and materials of whatever type or nature as may have been accumulated by the contractor in performing this agreement, whether completed or in process.
- b) If the termination is for the convenience of the County, the Contractor shall be paid compensation for services performed to the date of termination.
- c) If the termination is due to the failure of the Contractor to fulfill its agreement obligations, the

County may take over the work and prosecute the same to completion by other agreements or otherwise. In such case, the Contractor shall be liable to the County for all reasonable additional costs occasioned to the County thereby. The Contractor shall not be liable for such additional costs if the failure to perform the Agreement arises without any fault or negligence of the Contractor; provided, however, that the Contractor shall be responsible and liable for the actions of its subcontractors, agents, employees and persons and entities of a similar type or nature. Such causes may include acts of God or of the public enemy, acts of County in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without any fault or negligence of the Contractor. If through any cause, the Contractor shall fail to fulfill its obligations under this agreement, or if the Contractor violates any of the covenants, agreements or stipulations of this agreement, the County shall have the right to terminate this agreement by giving written notice to the Contractor of such termination, specifying the effective date thereof, at least ten (10) days before the effective

date of such termination.

- d) If after notice of termination for failure to fulfill its Agreement obligations it is determined that Contractor had not so failed, the termination shall be conclusively deemed to have been effected for the convenience of the County. In such event, adjustment in the Agreement price shall be made as provided in subsection (b) of this section.
- e) The rights and remedies of the County provided for in this Section are in addition and supplemental to any and all other rights and remedies provided by law or under this Agreement.
- f) The County reserves the right to terminate the agreement, without cause, during the thirty (30) days preceding the anniversary date of the contract execution, the effective date being the anniversary date, or other mutually agreed upon date.

17. EVALUATION OF PERFORMANCE

If through any cause, the Contractor shall fail to fulfill its obligations under this agreement, or if the Contractor violates any of the covenants, agreements or stipulations of this agreement, the County shall have the right to specify remedial action, which may be used as a consideration with respect to extension or termination of this contract.

18. ASSIGNABILITY BY CONTRACTOR

This agreement is not assignable by the Contractor without the expressed prior written consent of the County.

19. ASSIGNABILITY BY COUNTY

Any public agency within Brevard County may contract with the County for services to be performed by the Contractor under the terms and conditions of this agreement.

20. NON-EXCLUSIVITY

The parties hereto specifically agree that this is a non-exclusive agreement and that the County may select other contractors to perform construction, rehabilitation and maintenance during the term of this agreement.

21. ENTIRE AGREEMENT

It is agreed that neither party has made any statement, promise or agreement, or taken upon itself any engagement whatsoever, verbally or in writing, in conflict with the terms of this agreement or that in any way modifies, varies, alters, enlarges or invalidates any provisions hereof.

22. SEVERABILITY

In the event a court of competent jurisdiction finds any sentence, provision, paragraph, or section of this agreement null and void, the remaining parts of this agreement shall continue in full force and effect as though such sentence, provision, paragraph or section has been omitted from this Agreement.

23. WAIVER

In the event the County waives any of the Contractor's obligations or duties in this Agreement, it shall not constitute a waiver of any of the other obligations and duties of the Contractor, nor shall waiver of any such obligation or duty constitute a continuing waiver of that obligation or duty.

24. COMPENSATION

Compensation for the base contract shall be in accordance with Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation and Maintenance. Compensation for the Natural Disaster portion of this contract shall be in accordance with all applicable FHWA Emergency Relief Program requirements and shall be billed in accordance with Exhibit C, Natural Disaster Restoration and FHWA Federal Aid Projects and Exhibit D, Scope of Services Emergency Traffic Signal Repair.

Compensation schedules may be adjusted after the second year of the contract upon mutual consent of the parties. Compensation shall be based on material cost variation or other relevant economic conditions, sufficiently documented by the requesting party. Either party may request a compensation adjustment. Failure to agree upon compensation adjustments shall constitute mutually agreed upon termination of this agreement.

25. WARRANTY

The Contractor shall warranty all work for a period of twelve (12) months for workmanship and shall extend to the

County the same warranty on all materials and equipment furnished under this agreement, which the manufacturer extends to the Contractor, or purchasers, whichever is greater.

26. CONTRACTOR'S RECORDS

The County and its auditors shall be entitled to audit the books and records of the Contractor to the extent that such books and records relate to the performance of this Agreement. The Contractor shall maintain such records and accounts, including property, personnel, financial records, as are deemed necessary by the County and its auditors to insure proper accounting for all funds expended under this Agreement. Said records shall be made available, upon request, for audit purposes to Brevard County and its auditors. Such books and records shall be maintained by the Contractor for a period of three (3) years from the date of final payment under this Agreement unless a shorter period is otherwise authorized in writing.

27. WORK SCHEDULES & MAINTENANCE OF TRAFFIC

The Contractor is responsible for maintaining safe traffic flow in accordance with Florida Department of Transportation Roadway and Traffic Design Standards 600 series, latest version, and any other applicable references. Failure to comply with this requirement will result in complete shutdown by the County Traffic Operations Manager with no additional compensation to the Contractor. Contractor shall schedule work to minimize impact on the peak traffic periods. Peak periods are defined as

7:00 to 9:00 AM and 4:00 to 6:00 PM Monday through Friday. No lane closures shall be permitted during the peak periods.

29. MAINTENANCE OF TRAFFIC (MOT)

The compensation for MOT shall be one percent (1%) of the total project amount for each work order. This item will be automatically added to each work order by the County and does not require a bid price by the contractor. This pay item is intended as lump sum compensation to the contractor for the maintenance of traffic set up in accordance with the dates FDOT and Brevard County requirements for the life of this project.

30. MOBILIZATION

The compensation for Mobilization shall be five percent (5%) of the total project amount for each work order. This item will be automatically added to each work order by the County and does not require a bid price by the contractor.

31. UTILITY COORDINATION

The Contractor is responsible for coordinating with all public and private utility companies, as may be necessary for proper and safe completion of the work.

32. SUBCONTRACTING

It is understood that the Contractor will be solely responsible for the assigned work. Any subcontractors must be previously approved by the Traffic Operations Program Manager.

II EMERGENCY RESPONSE MAINTENANCE

1. PERSONNEL REQUIREMENTS

The Contractor shall provide evidence of qualified personnel, including as a minimum, one (1) IMSA Certified Level II Traffic Signal Technician, with a minimum of two (2) years of experience in traffic signal maintenance. Only IMSA Certified Level II Traffic Signal Technicians or personnel under the direct supervision of an IMSA Level II Traffic Signal Technician shall perform work on any components within the traffic control cabinet.

The Contractor shall designate a maintenance supervisor to coordinate work with County staff. In the event of an emergency or an emergency event such as a pole knockdown or natural disaster, the contractor shall be capable of responding with a repair crew within four (4) hours.

2. EQUIPMENT AND STOCK

The Contractor shall maintain at least one (1) vehicle at all times capable of performing aerial traffic signal maintenance work above thirty-five feet (35').

The vehicle and its safety equipment shall be maintained in a safe working condition.

The County reserves the right to inspect the vehicle and equipment at any time with respect to compliance with the contract.

No compensation will be made for time lost due to lack of proper equipment and materials necessary to perform routine

maintenance. It shall be the Contractor's responsibility to ensure that proper equipment and materials are available at the job site.

The County reserves the right to supply new and/or reconditioned parts to the Contractor for installation, at the County's discretion.

In the event of a natural disaster, equipment and materials for restoration may become difficult to obtain, for this reason the County maintains an emergency replacement stock. Any material or equipment provided by the County and utilized by the Contractor will be returned in kind within six (6) months, or the County will order replacements and bill the Contractor at a rate of one and one-half ($1 \frac{1}{2}$) times the replacement cost. All materials provided by the County to the contractor shall be documented on an inventory transfer sheet, and the County will maintain the original copy, with a photocopy or facsimile provided to the Contractor for mutual record keeping. In the event the County does not have the necessary parts, the County will purchase the parts from the Contractor at the Contractor's cost plus the agreed-upon markup. In the event of an emergency pole knockdown, the Contractor must have the necessary equipment and materials to restore the traffic signal to a safe operation until permanent repairs can be made.

3. PROCEDURE

The Contractor shall not commence work until verbal authorization is received from County staff. In the event of a

natural disaster or an emergency pole knockdown, the Contractor shall photograph the damaged facilities prior to commencing with repairs and after completion of the repairs. These documentation photographs shall be submitted to the County with the billing invoices. The photographs shall be submitted as a JPEG digital image with embedded date stamps.

The Contractor shall submit invoices for maintenance work to the Brevard County Public Works Department, 2725 Judge Fran Jamieson Way, Suite A-201, Viera, Florida 32940.

Invoices will not be paid without proper supporting documentation, including necessary photographs in event of a natural disaster.

4. INSPECTION AND ACCEPTANCE

The County shall inspect all work upon completion and formally accept the work before compensation can occur. It shall be the Contractor's responsibility to schedule and hold preliminary and final acceptance meetings. Failure of the County staff to detect discrepancies, poor workmanship, or faulty materials shall in no way release the Contractor from responsibility for completion of the task and successful operation as required.

5. COMPENSATION

Compensation for maintenance shall be in accordance with Exhibit B, Brevard County Traffic ITS Fiber Construction, Rehabilitation and Maintenance, attached hereto and incorporated herein. In the event work is required that is not covered by

the bid items (Exhibit B), the Contractor will be paid for labor on an hourly rate (Exhibit C) and shall submit a quote for any materials or equipment required, for approval before commencing work. Payment will be made to the nearest one-quarter hour, i.e. projects lasting 5 minutes will be paid for one-quarter hour; projects lasting 35 minutes will be paid for two quarter hours; projects lasting 50 minutes will be paid for one hour. The Contractor may charge the County for travel time to the work site, but shall not charge the County for return travel time.

Regular time work shall be work that was assigned to the Contractor between the hours of Contractor's operating hours, 8:00 a.m. through 5:00 p.m., Monday through Friday.

Overtime work shall be work that was assigned to the CONTRACTOR during those hours not defined as regular time.

Holidays may be charged at the overtime rate. Holidays are defined as those days officially designated as holidays by the Brevard County Board of County Commissioners.

Work that is initiated during regular time that is completed during overtime will be partially compensated at the regular time rate and the overtime rate, based upon the prorated share of work completed during overtime.

The Contractor will be compensated at the regular rate for work done on overtime due to the Contractor's inefficiency or voluntary election to pursue the work during overtime periods.

The County shall pay to the Contractor the actual cost of all materials furnished by the Contractor, associated with

maintenance activities, which are an integral part of the finished work, plus shipping, to which 25% shall be added for amounts up to \$100.00, 20% for amounts between \$100.00 and \$1,000.00, and 12% for all amounts equal to or in excess of \$1,000.00, said amounts to consist of the cost per item or unit which is normally sold or furnished as an integral unit. The County reserves the right to review the parts invoices to confirm material costs. The County reserves the right to purchase material to be held as inventory by the Contractor and installed in County equipment as the County may direct.

6. MULTIPLE CONCURRENT PROJECTS

The Contractor shall have adequate resources to handle two (2) or more Projects at the same time. Bidders shall define and submit a Management Plan and Resource List containing the minimum components (including personnel and equipment) to describe in detail their capability to handle multiple concurrent projects. The multiple concurrent project capability is considered a minimum requirement in the consideration of award of a contract for this solicitation.

III CONSTRUCTION AND REHABILITATION (NON-EMERGENCY)

1. PERSONNEL REQUIREMENTS

The Contractor shall provide sufficient qualified personnel as may be required to complete the assigned work, including one (1) IMSA Certified Level II Traffic Signal Technician to be available to assist in construction and rehabilitation projects as may be necessary. Only IMSA Certified Traffic Signal Level

II Technicians or personnel under the direct supervision of a Level II Technician shall be permitted to install/remove components from within the traffic control cabinet. The Contractor shall designate a construction supervisor to coordinate work with County staff.

2. EQUIPMENT AND STOCK

The Contractor shall provide sufficient equipment necessary to perform the work.

3. COMMUNICATIONS

The Contractor's construction supervisor shall be capable of communicating with County staff via pager or cellular telephone. All Contractor's telephone numbers, pager numbers, and cellular telephone numbers must be available and kept updated to Brevard County Traffic Operations Staff.

4. PROCEDURE

The Contractor shall not commence work until written authorization is received from County staff. Each notice to proceed will be sent to the Contractor at their preferred

address: Precision Contracting Services, Inc.
15834 Guild Court
Jupiter, FL 33478

The notice to proceed shall designate the time of completion for the work. Significant or consistent failure to complete the work in accordance with the agreed upon schedule is cause for termination.

A preconstruction conference is required prior to commencing work, unless specifically waived by County staff.

The Contractor is responsible for obtaining the location of all utilities in the vicinity of the work.

Upon completion of the work, the County and the Contractor will conduct a final inspection, during which a "punch list" will be developed. Upon completion of the punch list items, the COUNTY will accept the work, and will notify the Contractor of preliminary acceptance pending satisfactory completion of the burn-in period.

Construction and rehabilitation work shall have a sixty (60) day burn-in period, during which the Contractor is responsible for any maintenance calls, without charge to the County except for malfunction of County-supplied equipment. During the burn-in period, and during the construction phase of the project, the Contractor shall be capable of responding to emergency calls within a two (2) hour time frame. The County shall not be responsible for the emergency maintenance of construction or rehabilitation work during the construction or burn-in phases of the project.

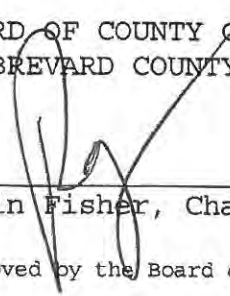
The Contractor shall submit invoices for construction and rehabilitation work to the address indicated on the Notice to Proceed.

Invoices may be submitted on a monthly basis in accordance with the work completed. The Contractor shall certify the work that has been completed.

Invoices will not be paid without proper supporting documentation.

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

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA



Robin Fisher, Chairman

Approved by the Board on September 16, 2014

Reviewed for legal form and content:

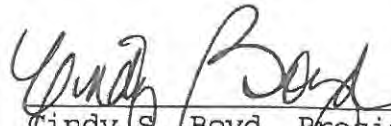


Deputy County Attorney

ATTEST:

PRECISION CONTRACTING SERVICES, INC.





Cindy S. Boyd, President

Subscribed & sworn to before me this
7th day of July, 2015.

