



Advertise Date: Tuesday, July 25, 2023

Lee County Board of County Commissioners
DEPARTMENT OF PROCUREMENT MANAGEMENT

Invitation to Bid (B)
DOT Construction Only

Solicitation No.: **B230008BAG**
Solicitation Name: **Hurricane Ian Permanent Signal Repair**
Open Date/Time: **Tuesday, August 08, 2023** Time: **2:30 PM**
Location: **Lee County Procurement Management
2115 Second Street, 1st Floor
Fort Myers, FL 33901**
Procurement Contact: **Brooke Green** Title **Procurement Analyst**
Phone: **(239) 533-8848** Email: **BGreen@leegov.com**
Requesting Dept. **Transportation**

Pre-Bid Conference:
Type: **No meeting scheduled at this time**

All solicitation documents are available for download at
www.leegov.com/procurement

FUNDED IN PART OR IN WHOLE BY:
The Florida Department of Transportation (FDOT)
FDOT Project #: 451930-2-58-01



Advertisement Date: Tuesday, July 25, 2023

INTRODUCTIONS AND BACKGROUND

Notice to Bidder

Invitation to Bid (B) Construction

Lee County, Florida, is requesting bids from qualified individuals/firms for

B230008BAG Hurricane Ian Permanent Signal Repair

Then and there to be publicly opened and read aloud for the purpose of selecting a vendor to furnish all necessary labor, services, materials, equipment, tools, consumables, transportation, skills, and incidentals required for Lee County, Florida, in conformance with the Solicitation Documents, which include technical Specifications and/or a Scope of Work.

Those individuals/firms interested in being considered for this Solicitation are instructed to submit, in accordance with the Specifications, their Bids, pertinent to this project prior to

2:30 PM Tuesday, August 08, 2023

to the office of the **Procurement Management Director, 2115 Second Street, 1st Floor, Fort Myers, Florida 33901**. The Invitation to Bid shall be received in a sealed envelope, prior to the time scheduled to receive Bid(s), and shall be clearly marked with the Solicitation name, Solicitation number, Bidder name, and contact information as identified in these Solicitation Documents.

The Scope of Work/Specifications for this solicitation is available from www.leegov.com/procurement. Bidders who obtain Scope of Work/Specifications from sources other than www.leegov.com/procurement are cautioned that the solicitation package may be incomplete. The County's official bidders list, addendum(s) and information must be obtained from www.leegov.com/procurement. It is the bidder's responsibility to check for posted information. The County may not accept incomplete Bids.

The County is seeking a CONTRACTOR to provide construction services for Permanent Repair of Damaged Traffic Signals, this project is funded in part or in whole by: The Florida Department of Transportation (FDOT) as a Local Agency Program (LAP) project. FDOT Project #:451930-2-58-01

There will be no Pre-Bid Conference for this solicitation.

It has been determined that the specifications and scope of work within this solicitation are adequate to describe the product or services being requested. A pre-bid conference and site visit has not been scheduled for this solicitation. Questions regarding this solicitation are to be directed, in writing, to the individual listed below using the email address listed below or faxed to (239) 485 8383 during normal working hours.

Brooke Green, BGreen@leegov.com

Sincerely,

Robin Dennard, CPPB
Procurement Manager

*WWW.leegov.Com/Procurement is the County's official posting site

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B230008BAG Hurricane Ian Permanent Signal Repair**

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Terms and Conditions

INVITATION TO BID (B) CONSTRUCTION

1. DEFINITIONS. Additional definitions may be found in the Draft Construction Agreement attached hereto.
 - 1.1. **Addendum/Addenda:** A written document used to modify the terms of a procurement instrument (such as an Invitation to Bid or Request for Proposals). An addendum is not to be confused with a contract "amendment."
 - 1.2. **Approved Alternate:** Solicitation documents may make reference of specific manufacturer(s) or product(s). These references serve only as a recommendation and a guide to minimum quality and performance. The references are not intended to exclude Approved Alternatives of other manufacturer(s) or product(s).
 - 1.3. **Award:** The determination of a successful Bidder(s) in response to this Solicitation.
 - 1.4. **Bid/Proposal Package:** An offer specifically given to the County in response to an informal or competitive procurement invitation issued by the County. This is also referred to as a "Response."
 - 1.5. **Bid Bond/Security:** Security in the form and amount required by the County pledging that the Bidder shall enter into a Contract with the County in accordance with the terms stated in its Bid.
 - 1.6. **Bidder:** Any individual, firm, partnership, joint venture, or corporation submitting a Bid for this project, acting directly or through an authorized representative.
 - 1.7. **County:** The Board of County Commissioners of Lee County, Florida, a political subdivision of the State of Florida, its successors, and assigns.
 - 1.8. **Contract/Agreement:** The written contract between the County and a successful Bidder pursuant to this Solicitation, a draft copy of which is attached hereto.
 - 1.9. **Contract Documents:** The documents listed in Section 1 of the attached draft Agreement.
 - 1.10. **Department of Procurement Management:** Shall mean the Lee County Department of Procurement Management.
 - 1.11. **Due Date and Time/Opening:** The date and time upon which a Bid or Proposal shall be submitted to, and actually received by, the Lee County Department of Procurement Management. Only Bids or Proposals received prior to the established date and time shall be considered.
 - 1.12. **Liquidated Damages:** Damages, usually in the form of monetary payment, agreed to by the parties to a contract which are due and payable as damages in the event of a breach of all or part of such contract. Liquidated Damages may be applied on a daily basis for as long as the breach is in effect.
 - 1.13. **Local Bidder:** Any Vendor whose physical business address, in the sole opinion of the County, is located within the boundaries of Lee County, Florida; at least two (2) fulltime employees in Lee County; and a Local Business Tax Receipt issued by Lee County at least one year prior to solicitation opening.
 - 1.14. **Responsible Bidder:** A Bidder submitting a Response who has the capability in all respects to perform fully the Contract requirements and the experience, capacity, facilities, equipment, credit, sufficient qualified personnel, and having the integrity and reliability with a record of timely and acceptable past performance that shall ensure good faith performance.
 - 1.15. **Responsive Bidder:** A Bidder submitting a Response that substantially conforms with all material respects to the requirements and criteria set forth in this Solicitation.
 - 1.16. **Solicitation/Solicitation Documents:** This document, its attachments, and any document hereinafter incorporated by reference.
 - 1.17. **Work:** All labor, materials, equipment, and incidentals required to fully, finally, and properly complete the construction project described herein and otherwise fully, finally and properly comply with all terms and conditions of the Contract Documents.
2. **ORDER OF PRECEDENCE**
 - 2.1. In resolving conflicts, errors, and discrepancies among the provisions of the Contract Documents, the order of precedence shall be as follows
 - 2.1.1. Florida State Law as applied to County Purchasing
 - 2.1.2. Lee County Procurement Ordinance 22-06
 - 2.1.3. Change Orders

- 2.1.4. Contract/Agreement including amendments and Exhibits
- 2.1.5. Field Directive Change Orders
- 2.1.6. The Solicitation Documents, including any Addenda

3. RULES, REGULATIONS, LAWS, ORDINANCES AND LICENSES

- 3.1. It shall be the responsibility of the Bidder to ensure compliance with all federal, state, or county codes, rules, regulations, or other requirements, as each may apply.
- 3.2. **Local Business Tax Account:** As applicable, anyone providing merchandise or services to the public within the jurisdiction of Lee County must obtain a Lee County business tax account to operate unless specifically exempted.
- 3.3. **License(s):** Bidder should provide, at the time of the opening of the Bid, licenses required for this product and/or service.

4. PREPARATION OF SUBMITTAL

- 4.1. **Sealed Bid:** Submission must be in a sealed envelope/box, and the outside of the submission should be marked with the following information (Sealed Bid Label Form is attached for your use):

- 4.1.1. "Sealed Bid"
- 4.1.2. Bid number
- 4.1.3. Bid title
- 4.1.4. Bid due date
- 4.1.5. Name of the Bidder submitting the Bid
- 4.1.6. Bidder's Contact e-mail and telephone number

- 4.2. **Bid submission shall:**

- 4.2.1. Provide two (2) hard copies. Mark one "Original," one "Copy."
- 4.2.2. Provide one (1) electronic flash drive set of the entire submission documents.
- 4.2.3. Provide that the electronic submission document is one single Adobe PDF file in the same order as the original hard copy.
- 4.2.4. Limit the color and number of images to avoid unmanageable file sizes.
- 4.2.5. Not lock files.

- 4.3. **Submission Format:**

- 4.3.1. Required Forms: complete and return **all** required forms. If the form is not applicable, please return with "Not Applicable" or "N/A" in large letters across the form.
- 4.3.2. Failure to submit required or requested information may result in the Bidder being considered non-responsive.
- 4.3.3. Execution of Bid: All documents must be signed by a corporate authorized representative, witnessed, and corporate and/or notary seals affixed, where applicable. All Bids shall be typed or printed in ink. The Bidder may not use erasable ink. All corrections made to the Bids shall be initialed.
- 4.3.4. The County may request specific files be submitted in specialty format (i.e. Microsoft Excel, PowerPoint etc.). Vendor shall accommodate such specialty requests as stated or described herein. Should files not be provide in the format or quantity as requested Bidder may be deemed non-Responsive and therefore ineligible for award.
- 4.3.5. The submission should not contain links to other web pages.
- 4.3.6. Include any information requested by the County necessary to analyze your Bid, i.e., required submittals, literature, technical data, or financial statements.
- 4.3.7. Bid Security/Bond(s), as applicable.

- 4.4. **Preparation Cost:** The Bidder is solely responsible for any and all costs associated with responding to this Solicitation. No reimbursement shall be made for any costs associated with the preparation and submittal of any Bid, or for any travel and per diem costs that are incurred by any Bidder.

5. RESPONSES RECEIVED LATE

- 5.1. It shall be the Bidder's sole responsibility to deliver the Bid submission to the Lee County Department of Procurement Management prior to or on the time and date required. All references to date and time herein reference Lee County, FL local time.

- 5.2. Any Bids received after the stated time and date shall not be considered. Late Bids shall not be opened at the public opening.
 - 5.3. The Lee County Department of Procurement Management shall not be responsible for delays caused by the method of delivery such as, but not limited to internet, United States Postal Service, overnight express mail service(s), or delays caused by any other occurrence.
6. BIDDER REQUIREMENTS (unless otherwise noted)
- 6.1. **Responsive and Responsible Bidders:** Only Bids received from Responsive and Responsible Bidders shall be considered. The County reserves the right, before recommending any Award, to inspect the facilities and organization; or to take any other necessary action, such as background checks, to determine if the Bidder is satisfactorily able to perform and reserves the right to reject submission packages where evidence submitted, or investigation and evaluation indicates an inability for the Bidder to perform.
 - 6.1.1. Additional sources may be utilized to determine credit worthiness and ability to perform.
 - 6.1.2. Any Bidder or sub-contractor that shall have access to County facilities or property may be required to be screened to a level that may include but is not limited to fingerprinting and a statewide criminal background check. There may be fees associated with these procedures. These costs are the responsibility of the Bidder or sub-contractor.
 - 6.1.3. Bidders are responsible for ensuring that any required background screening are conducted in accordance with Chapter 435. Bidders shall be aware, understand, and ensure compliance with the statutory requirements regarding background checks. FL Statutes Chapter 435 governs required background screenings for any employees, contractors, subcontractors, or agents of the Bidder who shall have contact with any vulnerable person, as defined by statute, or who otherwise are required to undergo a Level 1 or Level 2 background screening in accordance with Florida law. Such requirements shall flow down to sub-contractors/consultants of the prime Bidder and prime Bidder shall ensure compliance with Chapter 435 of such parties.
 - 6.1.3.1. Documentation of such completed background screenings must be maintained for a period of no less than five (5) years and are subject to audit by Lee County at any time during such five (5) year period.
 - 6.2. **Past Performance:** A Bidder's past performance and prior dealings with Lee County (i.e., failure to meet specifications, poor workmanship, late delivery, etc.) may be reviewed. Poor or unacceptable past performance may result in Bidder disqualification.
7. PRE-BID CONFERENCE
- 7.1. A pre-bid conference shall be held in the location, date, and time specified on the cover of this Solicitation. The cover shall also note if the pre-bid conference is non-mandatory or mandatory. All prospective Bidders are encouraged to obtain and review the Solicitation Documents prior to the pre-bid conference so they may be prepared to discuss any questions or concerns they have concerning this project. All questions must be submitted formally in writing to the procurement staff noted on the first page of the Solicitation Documents. A formal response shall be provided in the form of an Addendum (see "County Interpretation/Addendums" for additional information). If appropriate, a site visit may follow the pre-bid conference.
 - 7.2. **Non-Mandatory:** Pre-bid conferences are generally non-mandatory, but it is highly recommended that prospective Bidders participate.
 - 7.3. **Mandatory:** In the event a mandatory pre-bid conference is held, no Bids shall be considered by Bidders that fail to attend, and a Bid submitted by any such Bidder shall be considered **non-responsive**.
8. COUNTY INTERPRETATION/ADDENDUMS
- 8.1. Each Bidder shall examine the Solicitation Documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Bid shall be made **in writing, submitted at least eight (8) calendar days prior to the date when the Bid is due**.
 - 8.2. Response(s) shall be in the form of an Addendum posted on www.leegov.com/procurement. It is solely the Bidder's responsibility to check the website for information. The Lee County Department of Procurement Management shall send no notifications regarding postings associated with this solicitation.
 - 8.3. All Addenda shall be incorporated into the Contract Documents.

8.4. The County shall not be responsible for oral interpretations given by any County employee, representative, agent, or other person. Interpretation of the meaning of the plans, Specifications, or any other Contract Document, or for correction of any apparent ambiguity, inconsistency, or error there in, shall be in writing. Issuance of a written Addendum by the County's Department of Procurement Management is the only official method whereby interpretation, clarification or additional information may be given.

9. QUALITY GUARANTEE/WARRANTY (as applicable)

- 9.1. Bidder shall guarantee their work without disclaimers, unless otherwise specifically approved by the County, for a minimum of twelve (12) months from the date of final completion.
- 9.2. Unless otherwise specifically provided in the specifications, all equipment and materials and articles incorporated in the work covered by this contract shall be new, unused and of the most suitable grade for the purpose intended. Refurbished parts or equipment are not acceptable unless otherwise specified in the specifications. All warranties shall begin from the date of final completion.
- 9.3. Unless otherwise specifically provided in the specifications, the equipment must be warranted for twelve (12) months, shipping, parts, and labor. Should the equipment be taken out of service for more than forty-eight (48) hours to have warranty work performed, a loaner machine of equal capability or better shall be provided for use until the repaired equipment is returned to service at no additional charge to the County.
- 9.4. If any product does not meet performance representation or other quality assurance representations as published by manufacturers, producers or distributors of such products or the specifications listed, the vendor shall pick up the product from the County at no expense to the County. The County reserves the right to reject any or all materials, if in its judgment the item reflects unsatisfactory workmanship or manufacturing or shipping damage. The vendor shall refund, to the County, any money which has been paid for same.

10. SUBSTITUTION(S)/APPROVED ALTERNATE(S)

- 10.1. Unless otherwise specifically provided in the Specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. If a Bidder wishes to make a substitution in the Specifications, the Bidder shall furnish to the County, **no later than ten (10) business days prior to the Bid opening date**, the name of the manufacturer, the model number, and other identifying data and information necessary to aid the County in evaluating the substitution. Such information is submitted through the Department of Procurement Management. Any such substitution shall be subject to County approval through the issuance of a written Addendum by the County's Department of Procurement Management. Substitutions shall be approved only if determined by the County to be an **Approved Alternate** to the prescribed Specifications.
- 10.2. A Bid containing a substitution is subject to disqualification if the substitution is not approved by the County. Items Bid must be identified by brand name, number, manufacturer, and model, and shall include full descriptive information, brochures, and appropriate attachments. Brand names are used for descriptive purposes only. An **Approved Alternate** product or service may be used.

11. ADDITIONS, REVISIONS AND DELETIONS

- 11.1. Additions, revisions, or deletions to the Terms and Conditions, specifications that change the intent of the solicitation shall cause the solicitation to be non-responsive and the proposal shall not be considered. The Procurement Management Director shall be the sole judge as to whether or not any addition, revision, or deletion changes the intent of the solicitation.

12. NEGOTIATED ITEMS

- ~~12.1. Any item not outlined in the Scope of Work/Specifications may be subject to negotiations between the County and the successful Bidder.~~
- ~~12.2. After Award of this Bid, the County reserves the right to add or delete items/services at prices to be negotiated at the time of addition or deletion.~~

- ~~12.3. At contract renewal time(s) or in the event of significant industry wide market changes, the County may negotiate justified adjustments such as price, terms, etc., if in its sole judgment, the County considers such adjustments to be in their best interest.~~

13. CALCULATION ERRORS

- 13.1. In the event of multiplication/addition error(s), the unit price shall prevail, and the corrected sum shall be considered the bid price. All Bids shall be reviewed mathematically and corrected, if necessary, using these standards, prior to further evaluation.

14. CONFIDENTIALITY

- 14.1. Bidders should be aware that all submissions provided are generally considered public records subject to public disclosure upon conclusion of the Solicitation process, and shall **not** be afforded confidentiality, unless otherwise provided by law.
- 14.2. If information is submitted with a Bid that is deemed “confidential,” the Bidder must stamp those pages of the submission that are considered confidential. The Bidder must provide sufficient documentation demonstrating why such documents should be deemed confidential in accordance with Florida law.
- 14.3. Lee County **shall not reveal engineering estimates or budget amounts for a project** unless required by grant funding or unless it is in the best interest of the County. Pursuant to § 337.168, F.S.: A document or electronic file revealing the official cost estimate of the department of a project is confidential and exempt from the provisions of § 119.07(1), F.S. until the Contract for the project has been executed or until the project is no longer under active consideration.

15. CONFLICT OF INTEREST

- 15.1. **Business Relationship Disclosure Requirement:** The Award hereunder is subject to the provisions of Chapter 112, F.S. All Bidders must disclose with their submission the name of any officer, director or agent who is also an officer or employee of Lee County or any of its agencies or a spouse or child of such officers or employees. Furthermore, all Bidders must disclose the name of any County officers, employees, or spouses or children thereof who own directly or indirectly, an interest of five percent (5%) or more in the Bidder’s firm or any of its branches.
- 15.2. A Vendor that assisted in preparing and/or writing a scope of work and/or specifications may not submit a bid or proposal for County consideration on that project.

16. ANTI-LOBBYING CLAUSE (Cone of Silence)

- 16.1. Upon the issuance of the Solicitation, prospective Bidders, or any agent, representative or person acting at the request of said Bidder shall not have any contact, communicate with or discuss any matter relating in any way to the Solicitation with any commissioner, evaluation review committee, agent or employee of the County other than the Procurement Management Director or their designee. This prohibition begins with the issuance of any Solicitation and ends upon issuance of the Notice of Intended Decision, the rejection of all responses, or the termination of this competitive procurement. **If it is determined that improper communications were conducted, the Bidder may be declared non-responsible.**

17. ANTITRUST VIOLATION

- 17.1. A person or an affiliate who has been placed on the antitrust violator vendor list, available at [Antitrust Violator Vendor List / Vendor Registration and Vendor Lists / State Agency Resources / State Purchasing / Business Operations / Florida Department of Management Services - DMS \(myflorida.com\)](#), following a conviction or being held civilly liable for an antitrust violation may not submit a bid, proposal, or reply for any new contract to provide any goods or services to Lee County; may not submit a bid, proposal, or reply for a new contract with Lee County for the construction or repair of a public building or public work; may not submit a bid, proposal, or reply on new leases of real property to Lee County; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a new contract with Lee County; and may not transact new business with Lee County.

18. DRUG FREE WORKPLACE

18.1. The County encourages Drug Free Workplace programs.

19. FLORIDA CERTIFIED ENTERPRISES

19.1. The County encourages the use of Florida Certified Enterprises such as Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE) firms.

19.2. Bidder/Proposer is requested to indicate whether the Firm and/or any proposed sub-consultants are a Florida Certified Enterprise. Lee County encourages the utilization and participation of DBE, MBE, WBE, VBE or similar in procurements, and evaluation proceedings shall be conducted within the established guidelines regarding equal employment opportunity and nondiscriminatory action based upon the grounds of race, color, sex or national origin. Interested Florida Certified Enterprises such as Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE) firms and similar are encouraged to submit.

20. ANTI-DISCRIMINATION/EQUAL EMPLOYMENT OPPORTUNITY

20.1. The Bidder agrees to comply, at its own expense, with all federal, state, and local laws and regulations, including federal, state, and local laws, codes, statutes, ordinances, rules, regulations, and requirements applicable to the Work, including but not limited to those dealing with taxation, workers' compensation, equal employment and safety. Bidder acknowledges and agrees, the Rehabilitation Act of 1973 as amended, the Americans with Disabilities Act of 1990 (ADA), and the ADA Amendments Act of 2008 (ADAAA), that in performing the Work hereunder, no person on the grounds of race, religion, color, age, sex, national origin, disability or marital status shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination.

20.2. The Bidder shall not discriminate against any employee or applicant for employment because of race, religion, color, age, sex, national origin, disability, or marital status. The Bidder shall make affirmative efforts to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, age, sex, national origin, disability, or marital status.

20.3. The Bidder shall include the provisions of this section in every sub-contract under this Contract to ensure its provisions shall be binding upon each sub-contractor. The Bidder shall take such actions in respect to any sub-contractor, as the contracting agency may direct, as a means of enforcing such provisions, including sanctions for non-compliance.

20.4. An entity or affiliate who has been placed on the State of Florida's Discriminatory Vendor List (this list may be viewed by going to the Department of Management Services website at <http://www.dms.myflorida.com>) may not submit a Bid on a contract to provide goods or services to a public entity, may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids on leases of real property to a public entity, may not award or perform work as a vendor, supplier, sub-contractor, or consultant under contract with any public entity, and may not transact business with any public entity.

21. SUB-CONTRACTORS

21.1. The use of sub-contractors under this Solicitation requires prior written authorization from the County representative.

22. PROJECT GUIDELINES (as applicable)

22.1. The County has established the following guidelines, criteria, goals, objectives, constraints, schedule, budget and or requirements which shall serve as a guide to the Bidder(s) in performing the Work provided for pursuant to this Contract:

22.1.1. No amount of Work is guaranteed upon the execution of a Contract.

22.1.2. Rates and all other negotiated expenses shall remain in effect throughout the duration of the Contract period inclusive of any renewals unless otherwise specified herein.

22.1.3. ~~This Contract does not entitle any Bidder to exclusive rights to County contracts. The County reserves the right to perform any and all available required Work in-house or by any other means it so desires.~~

- 22.1.4. In reference to vehicle travel, mileage and man-hours spent in travel, time is considered incidental to the Work and not an extra compensable expense.
- ~~22.1.5. Lee County reserves the right to add or delete, at any time, any or all material, tasks or services associated with this Contract.~~
- 22.1.6. Any Single Large Project: The County, in its sole discretion, reserves the right to separately solicit any project that is outside the scope of this Solicitation, whether through size, complexity or the dollar value.
- 22.1.7. Background Check(s): The County is committed to maintaining a safe and secure environment. The following shall apply to the contractor, contractor employees, employees hired through a third-party staffing vendor, subcontractors and any other staffing that may be working in or around a County Facility, School, Library, and other locations as deemed necessary.
- Upon written request by Lee County Procurement Management, the contractor at its expense must conduct a background check for each of its employees, as well as for the employees of its subcontractors, who shall provide services to the County or have access to the County computer systems, through either onsite or remote access. Contractor employees, for the purpose of this requirement, include such temporary staff as office support, custodial service, and any third-party vendor. Background checks shall be conducted through the Florida Department of Law Enforcement and provided to Lee County Procurement Management Department at procurement@leegov.com. Background checks must be conducted prior to commencement of said project(s).

23. TIEBREAKER

- 23.1. Whenever two or more Bids, which are equal with respect to price, quality, and service, are received for procurement of commodities or contractual services, from Responsive and Responsible Bidders, the following steps shall be taken to establish the Award to the lowest Bidder. This method shall be used for all ties.
- 23.1.1. Step 1 - Local Bidder: Between a Local Bidder, and a non-Local Bidder, a Contract Award, or the first opportunity to negotiate, as applicable, shall be made to the Local Bidder. **If local preference is prohibited by the funding source, then step 2 shall replace step 1.**
- 23.1.2. Step 2 - Drug Free Workplace: At the conclusion of step 1, if all is equal, the Bidder with a Drug Free Workplace program shall be given preference over a Bidder with no Drug Free Workplace program. The Contract Award, or the first opportunity to negotiate, as applicable, shall be made to the Bidder with the Drug Free Workplace program.
- 23.1.3. Step 3 - Coin Flip: At the conclusion of Step 1 and Step 2, if all is equal, the Contract Award, or the first opportunity to negotiate, as applicable, the final outcome shall be determined by the flip of a coin.
- ~~23.2. When the tie has been broken pursuant to the above procedures, the Contract Award, or the first opportunity to negotiate, as applicable, shall be furnished to the prevailing Bidder.~~
- 23.3. If an Award or negotiation is unsuccessful with the initial Bidder, Award or negotiations may commence with the next highest Bidder, utilizing the tiebreaker steps above to make the determination of next lowest Bidder, if necessary.

24. WITHDRAWAL OF BID

- 24.1. No Bid may be withdrawn for a period of **180 calendar days** after the scheduled time for receiving submissions. A Bid may be withdrawn prior to the Solicitation opening date and time. Withdrawal requests must be made in writing to the Procurement Management Director, who shall approve or disapprove the request.
- 24.2. After submissions are opened, but prior to Award of the Contract by the County Commission, the Procurement Management Director may allow the withdrawal of a Bid because of the mistake of the Bidder in the preparation of the submission document. In such circumstance, the decision of the Procurement Management Director to allow the submission withdrawal, although discretionary, shall be based upon a finding that the Bidder, by clear and convincing evidence, has met each of the following four tests:
- 24.2.1. The Bidder acted in good faith in submitting the Bid;
- 24.2.2. The mistake in Bid preparation was of such magnitude that to enforce compliance by the Bidder would cause a severe hardship on the Bidder;

- 24.2.3. The mistake was not the result of gross negligence or shallful inattention by the Bidder; and
- 24.2.4. The mistake was discovered and was communicated to the County prior to the County Commission having formally Awarded the Contract.

25. PROTEST RIGHTS

- 25.1. Any Bidder that has submitted a formal Response to Lee County, and who is adversely affected by an intended decision with respect to the Award, has the right to protest an intended decision posted by the County as part of the Solicitation process.
- 25.2. Notice of Intended Decision is posted on the Lee County Department of Procurement Management website (www.leegov.com/procurement). Bidders are solely responsible to check for information regarding the Solicitation.
- 25.3. Refer to the "Procurement Protest" section of the Lee County Procurement Ordinance 22-06 for a complete description of the protest process and associated requirements. The ordinance is posted on the Lee County website or may be obtained by contacting the Procurement Management Director.
- 25.4. In order to preserve the right to protest, a written **"Notice of Intent to File a Protest" must be filed with the Lee County Procurement Management Director within seventy-two (72) hours of Posting of the Notice of Intended Decision.**
 - 25.4.1. The notice shall clearly indicate all grounds being claimed for the protest.
 - 25.4.2. The notice must be physically received by the Procurement Management Director within the required time frame described above. No additional time shall be granted for mailing.
- 25.5. Following receipt of the Notice of Intent to File a Protest, a **"Protest Bond"** and **"Formal Written Protest"** must be filed **within ten (10) business days** of Posting of the Notice of Intended Decision.
- 25.6. **Failure to follow the protest procedures requirement within the time frames as prescribed herein and in the Lee County Procurement Ordinance 22-06 shall constitute a waiver of the right to protest and shall bar any resulting claims.**

26. AUTHORITY TO UTILIZE BY OTHER GOVERNMENT ENTITIES

- 26.1. This procurement opportunity is also made available to any government entity. Pursuant to their own governing laws, and subject to the Agreement/Contract of the Bidder, other entities may be permitted to make purchases at the terms and conditions contained herein. The Lee County Board of County Commissioners shall not be financially responsible for the purchases of other entities from this Solicitation.

27. CONTRACT ADMINISTRATION

- 27.1. **Designated Contact:**
 - 27.1.1. The Awarded Bidder shall appoint a person(s) to act as a primary contact for all County departments. This person or their designee shall be readily available during normal working hours by phone or in person and shall be knowledgeable of the terms and procedures involved.
 - 27.1.2. Lee County requires that the Awarded Bidder provide the name of a contact person(s) and phone number(s) which shall afford Lee County access twenty-four (24) hours per day, 365 days per year, in the event of major breakdowns or natural disasters.
- 27.2. **Basis of Award:**
 - 27.2.1. The County shall issue a Notice of Intended Decision to the lowest Responsive and Responsible Bidder who submits a Bid.
 - 27.2.2. In the event the lowest Responsive and Responsible Bid exceeds the architectural or engineering cost estimates or the amount of available funds, the County Administrator or designee may, when time or economic considerations preclude re-bidding of Work of a reduced scope, negotiate an adjustment of the Scope of Work with the lowest Responsive and Responsible Bidder, in order to bring the Bid within the amount of available funds.
 - 27.2.3. The County reserves the right to make Award(s) by individual item, group of items, all or none, or a combination thereof. The County reserves the right to reject any and all Bids or to waive any minor irregularity or technicality in the Bids received. Award shall be made to the lowest Responsive and Responsible Bidder(s) within the category chosen for basis of Award.

27.2.4. The County reserves the right to Award to one or multiple Bidders at the discretion of the requesting authority and approval of the Procurement Management Director.

27.3. Contract:

27.3.1. The Awarded Bidder shall be required to enter into the Contract with the County and shall be required to perform the Work in accordance with the Contract terms and conditions. The draft Contract is attached to this Solicitation and incorporated herein by reference. The Contract may be viewed on-line at <http://www.leegov.com/procurement/forms>.

27.4. Records:

27.4.1. Retention: The Bidder shall maintain such financial records and other records as may be prescribed by Lee County or by applicable federal and state laws, rules, and regulations. Unless otherwise stated in the Specifications, the Bidder shall retain these records for a period of ten (10) years after final payment, or until they are audited by Lee County, whichever event occurs first.

27.4.2. Right to Audit/Disclosure: These records shall be made available during the term of the Contract as well as the retention period. These records shall be made readily available to County personnel with reasonable notice and other persons in accordance with the Florida General Records Schedule. Awarded Bidder(s) are hereby informed of their requirement to comply with Chapter 119, F.S., specifically to:

27.4.2.1. Keep and maintain public records required by the County to perform the service.

27.4.2.2. Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided or as otherwise provided by law.

27.4.2.3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the contractor does not transfer the records to the County.

27.4.2.4. Upon completion of the Contract, transfer, at no cost, to the County all public records in possession of the Bidder or keep and maintain public records required by the County to perform the service. If the Bidder transfers all public records to the County upon completion of the Contract, the Bidder shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Bidder keeps and maintains public records upon completion of the Contract, the Bidder shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

27.4.3. Public Records: **IF THE BIDDER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE BIDDER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 239-533-2221, 2115 SECOND STREET, FORT MYERS, FL 33901, Email at PRRCustodian@leegov.com or Visit <http://www.leegov.com/publicrecords>.**

27.4.4. Ownership: It is understood and agreed that all documents, including detailed reports, plans, original tracings, specifications, and all data prepared or obtained by the successful Bidder in connection with its services hereunder, including any documents bearing the professional seal of the successful Bidder, shall be delivered to, and become the property of Lee County, prior to final payment to the successful Bidder or the termination of the Contract. This includes any electronic versions, such as CAD or other computer aided drafting programs.

27.5. Termination:

- 27.5.1.** Termination of an Award or Contract entered into pursuant to this Solicitation shall be governed by the terms of such Contract and by the provisions of this section.
- 27.5.2.** The Procurement Management Director may immediately terminate any Award resulting from this Solicitation for emergency purposes, as defined by the Lee County Procurement Ordinance 22-06.
- 27.5.3.** Any Bidder who has voluntarily withdrawn from a Solicitation without the County's mutual consent during the Contract period shall be barred from further County procurement for a **period of 180 calendar days**. The Bidder may apply to the Board for a waiver of this debarment. Such application for waiver of debarment must be coordinated with and processed by the Procurement Management Department.
- 27.5.4.** For a Contract over \$1,000,000, the County reserves the right to terminate an award of such contract upon information or belief of any of the following, when, applicable:
 - 27.5.4.1.** Bidder is found to have submitted a false certification as provided under § 287.135 (5), F.S.;
 - 27.5.4.2.** Bidder has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List (§ 215.473, F.S.);
 - 27.5.4.3.** Bidder has engaged in business operations in Cuba or Syria (§ 215.471, F.S.);
 - 27.5.4.4.** Bidder has been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel (§ 215.4725, F.S.).
 - 27.5.4.5.** The County reserves the right to review, on a case-by-case basis, and waive this stipulation if it is deemed to be advantageous to the County.

27.6 Termination for Convenience:

- 27.6.1.** The County may terminate the entire Contract or any portion thereof, if the Director determines that a termination is in the County's interest. The Director shall deliver to the Contractor a Written Notice of Termination specifying the extent of termination and the effective date.
 - 27.6.1.1.** When the County terminates the entire Contract, or any portion thereof, before the Contractor completes all items of work in the Contract, the County shall make payment for the actual number of units or items of work that the Contractor has completed, at the Contract unit price, and according to the formulas and provisions set forth in the contract documents for work partially completed, and such payments shall constitute full and complete compensation for such work or items. No payment of any kind or amount shall be made for items of work not started. The County shall not consider any claim for loss of anticipated profits, or overhead of any kind (including home office and jobsite overhead or other indirect impacts) except as provided for within the contract documents for partially completed work.
 - 27.6.1.2.** The County shall consider reimbursing the Contractor for actual cost of mobilization (when not otherwise included in the Contract) including moving equipment to the job where the volume of the work that the Contractor has completed is too small to compensate the Contractor for these expenses under the Contract unit prices.
 - 27.6.1.3.** The County may purchase at actual cost acceptable materials and supplies procured for the work, that the County has inspected, tested, and approved and that the Contractor has not incorporated in the work. Submit the proof of actual cost, as shown by receipted bills and actual cost records, at such points of delivery as the Director may designate.
 - 27.6.1.4.** Termination of a contract or a portion thereof, does not relieve the Contractor or the surety of its responsibilities for the completed portion of the contract or its obligations for and concerning any just claims arising out of the work performed.

27.6.1.5. All Contractor claims for additional payment, due to the County's termination of the entire Contract or any portion thereof, must meet the requirements as stated within the contract documents.

28. WAIVER OF CLAIMS

- 28.1. Once the Contract associated with this Solicitation expires, or final payment has been requested and made, the Awarded Bidder shall have waived any claims against the County concerning such Contract, except those previously made in writing and identified by the Awarded Bidder as unsettled at the time of the final application for payment.

29. LEE COUNTY PAYMENT PROCEDURES

- 29.1. Unless otherwise noted, all Awarded Bidders are requested to mail an original invoice to:
Lee County Finance Department
Post Office Box 2238
Fort Myers, FL 33902-2238
- 29.2. All invoices shall be paid as directed by the Lee County payment procedure, unless otherwise stated in the Contract or detailed Specifications for this project.
- 29.3. Lee County shall not be liable for requests for payment deriving from aid, assistance, or help by any individual, vendor, proposer, or Bidder for the preparation of these Specifications.

30. SAFETY DATA SHEETS (SDS) (as applicable)

- 30.1. It is the Bidder's responsibility to provide Lee County with Safety Data Sheets on Bid materials, as may apply to this procurement.

31. BOND/SURETY

- 31.1. Bonding/Surety is required in accordance with the Lee County Procurement Ordinance 22-06.
- 31.2. **Bid Bond/Security: The Procurement Management Department shall determine if a Bid Bond shall be required for any Competitive Procurement.** Each Bidder shall submit **not less than five percent (5%) of the proposed dollar amount** (including applicable Alternates) as Bid Bond/Security. One **ORIGINAL** Bid Bond/Security shall be submitted to the County with each Bid submission. The Bid Bond/Security of the Bidder shall be retained until the Bidder and the County have entered into the Contract, whereupon the Bid Bond/Security may be returned. The Bid Bond/Security of a Bidder whom the County believes to have a reasonable chance of receiving the Award may be retained by the County until the effective date of the Contract, whereupon any Bid Bonds/Securities furnished by a Bidder may be returned. The following types of Bid Security shall be accepted:
- 31.2.1. **A Certified Check or a Cashier's Check** in the amount of not less than five percent (5%) of the proposed dollar amount. Any Certified Check or Cashier's Check submitted in lieu of a Bid Bond shall be drawn on a solvent bank or trust company, made payable to Lee County Board of County Commissioners and shall have all necessary documentary revenue stamps attached (if required by law); or
- 31.2.2. **A Bid Bond** may be submitted on a Lee County paper Bid Bond Form. Such Bid Bond must be signed by all required parties, must be in the amount of not less than five percent (5%) of the proposed dollar amount (including Alternate(s) as applicable), and shall accompany each submission. The Bid Bond shall be issued by a surety authorized to do business and in good standing with the Florida Department of State.
- 31.3. **Performance and Payment Bond:** As further described in the Contract, the successful Bidder shall provide Performance and Payment Bonds in the amount of one hundred percent (100%) of the total Awarded Contract amount within **seven (7) calendar days** after notification by the County of the approval to award the Contract, the costs of which are to be paid by the successful Bidder. Such Performance and Payment Bonds shall be in the form prescribed by the Exhibits to the attached Contract. The Performance and Payment Bonds shall be underwritten by a surety authorized to do business in the State of Florida and otherwise acceptable to the County; provided, however, the surety shall be rated as "B" or better as reported in the most current Best's Key Rating Guide, published by A.M. Best Company, Inc. The successful Bidder shall

record the Performance and Payment Bond with the Lee County Clerk of Courts, at its sole expense, and provide the original, recorded bond document to the County.

31.4. A **Clean Irrevocable Letter of Credit or Cash Bond** may be accepted by the County in lieu of the Public Payment and Performance Bond.

31.5. **Personal Checks are not acceptable to Lee County as a Bid Security.**

32. ~~LOCAL VENDOR PREFERENCE~~

32.1. ~~The Procurement Management Department shall adhere to the Lee County Ordinance No. 22-06 and as may be amended from time to time (the County's "Local Vendor Preference"). It shall be at the discretion of the County Manager or Designee whether to apply Local Vendor Preference to any particular Solicitation.~~

32.2. ~~The County's Local Vendor Preference, as it relates to Bidding preferences for local Vendors, is not applicable to Solicitations or Contracts when Commodities and/or Services may be provided in the event of an Emergency.~~

32.3. ~~The County's Local Vendor Preference shall not apply in any procurement for Commodities or Services if the use of the Local Vendor Preference is prohibited by the terms of a grant or funding agreement or other prevailing law or policy.~~

33. INSURANCE (AS APPLICABLE)

33.1. Insurance shall be provided by the Awarded Bidder pursuant to the Specifications provided herein and/or in the Contract. Prior to execution of the Contract, a certificate of insurance (COI) complying with the Solicitation Documents shall be provided by the Bidder.

33.2. Insurance carriers providing coverage required herein shall be licensed to conduct business in the State of Florida and shall possess a current A.M. Best's Financial Strength Rating of "B or better."

End of Terms and Conditions Section

INSURANCE GUIDE



Lee County Insurance Requirements

Minimum Insurance Requirements: *Risk Management in no way represents that the insurance required is sufficient or adequate to protect the vendors' interest or liabilities. The following are the required minimums the vendor must maintain throughout the duration of this contract. The County reserves the right to request additional documentation regarding insurance provided*

- a. **Commercial General Liability** - Coverage shall apply to premises and/or operations, products and completed operations, independent contractors, contractual liability exposures with minimum limits of:
 - \$1,000,000 per occurrence
 - \$2,000,000 general aggregate
 - \$1,000,000 products and completed operations
 - \$1,000,000 personal and advertising injury
- b. **Business Auto Liability** - The following Automobile Liability will be required and coverage shall apply to all owned, hired and non-owned vehicles use with minimum limits of:
 - \$1,000,000 combined single limit (CSL); or
 - \$500,000 bodily injury per person
 - \$1,000,000 bodily injury per accident
 - \$500,000 property damage per accident
- c. **Workers' Compensation** - Statutory benefits as defined by FS 440 encompassing all operations contemplated by this contract or agreement to apply to all owners, officers, and employees regardless of the number of employees. Workers Compensation exemptions may be accepted with written proof of the State of Florida's approval of such exemption. Employers' liability will have minimum limits of:
 - \$500,000 per accident
 - \$500,000 disease limit
 - \$500,000 disease – policy limit

**The required minimum limit of liability shown in a. and b. may be provided in the form of "Excess Insurance" or "Commercial Umbrella Policies." In which case, a "Following Form Endorsement" will be required on the "Excess Insurance Policy" or "Commercial Umbrella Policy."*



Lee County Insurance Requirements

Verification of Coverage:

1. Coverage shall be in place prior to the commencement of any work and throughout the duration of the contract. A certificate of insurance will be provided to the Risk Manager for review and approval. The certificate shall provide for the following:

- a. **Under the Description of Operations, the following must read as listed:**

"Lee County, a political subdivision and Charter County of the State of Florida, its agents, employees, and public officials are automatic additional insureds and includes an automatic waiver of subrogation with regard to general liability. The certificate holder is an additional insured on a primary and noncontributory basis with regards to general liability."

- b. **The certificate holder must read as follows:**

Lee County, a political subdivision and Charter County of the State of Florida
P.O. Box 398
Fort Myers, Florida 33902

Special Requirements:

1. An appropriate "Indemnification" clause shall be made a provision of the contract.
2. It is the responsibility of the general contractor to ensure that all subcontractors comply with all insurance requirements.

Grant/Funding Special Requirements

To the fullest extent provided by law, the Contractor/Consultant shall indemnify, defend, and hold harmless the County, and The State of Florida, Department of Transportation, and its officers, agents, and employees, against any actions, claims or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of Contractor/Consultant, or any of its officers, agents, or employees, acting within the scope of their office or employment, in connection with the rights granted to or exercised by Contractor/Consultant hereunder, to the extent and within the limitations of Section 768.28, Florida Statutes.

The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Florida Statutes, Section 768.28. Nor shall the same be construed to constitute agreement by Contractor/Consultant to indemnify County for the negligent acts or omissions of County, its officers, agents, or employees, or third parties. Nor shall the same be construed to constitute agreement by Contractor/Consultant to indemnify the Department for the negligent acts or omissions of the Department, its officers, agents, or employees, or third parties. This indemnification shall survive the termination of this Agreement.

In addition to the County, the State of Florida, Department of Transportation shall also be listed as additional insured and certificate holder.

The additional certificate holder shall read:

**State of Florida Department of Transportation
605 Suwannee Street
Tallahassee, Florida 32399-0450**

End of Insurance Guide Section

SPECIAL CONDITIONS

These are conditions that are in relation to this Solicitation only and have not been included in the County's standard Terms and Conditions or the Scope of Work and Specifications.

1. **TERM**

- 1.1 From the Notice to Proceed or the Purchase Order date, whichever applies, the timeframe for completion of all Work to Final Acceptance shall be **365 CALENDAR DAYS**.
- 1.2 Permanent Traffic Signal Repairs, excluding the repairs of overhead signs, preemption, Uninterruptible Power Supply, street light arms and fixtures, shall be completed **180 CALENDAR DAYS** from the Notice to Proceed or the Purchase Order date, whichever applies.

2. **LIQUIDATED DAMAGES**

- 2.1 In accordance with the terms set forth in the Agreement, should the Contractor fail to achieve Final Acceptance of the Work within the time period stated in the Agreement, the County shall be entitled to assess the amount set forth in Article 8-10 of Exhibit E Standard Specifications, as Liquidated Damages, but not as a penalty, for each calendar day thereafter until Final Acceptance is achieved.

3. **BASIS OF AWARD**

- 3.1 The basis of award shall be determined by the lowest Project Total of the most responsive, responsible, and qualified Contractor meeting all bid specifications.

4. **MINIMUM QUALIFICATIONS**

- 4.1. Contractor shall meet the minimum qualification criterion as specified in Form 9 – Minimum Qualification Requirements provided within this solicitation package to qualify for consideration of award. Form 9 - Minimum Qualification Requirements should be completed and returned with proposal submittal along with any supporting documentation requested and/or indicated herein.
- 4.2. The determination shall be based upon the examination of Form 9 – Minimum Qualification Requirements and associated supportive documentation (if any requested). Failure to meet the minimum qualifications as listed, at the sole discretion of the County, may result in Contractor being deemed Non-Responsive.

End of Special Conditions Section

SCOPE OF WORK AND SPECIFICATIONS

1. GENERAL SCOPE OF WORK SUMMARY

- 1.1 Lee County Board of County Commissioners seeks to contract with an FDOT pre-qualified Contractor to provide construction services at various signalized intersections in Lee County, Florida. The scope of work includes construction of permanent repairs at signalized intersections and includes, but is not limited to, signal work, vehicle detection, ITS, and street lighting.
- 1.2 This project consists of rebuilding span wire intersections, rewiring intersections, replacing traffic signal heads, repairing traffic signal heads, replacing backplates, tunnel visors, hanger assemblies, disconnects, flat bar, tightening mast arm base plates, replacing street light arms, and fixtures.
- 1.3 Provide all labor, material, and equipment required to complete the work described in this Contract including Temporary Traffic Control (TTC), Mobilization, and Demobilization costs. Traffic Signal Repair Operations may also include nighttime work as directed by the County. Conduct all Traffic Signal Repair Operations in accordance with all applicable federal, state, and local laws and regulations.
- 1.4 Contractor shall always have a minimum of Two (2) Traffic Signal Repair Crews. The minimum number of Traffic Signal Repair Crews must remain available until final completion on the contract.
- 1.5 Provide proper documentation to the County for all Traffic Signal Repair Operations to ensure reimbursement eligibility to the County from the applicable Federal Disaster Reimbursement Program(s) ("FDRP"), which includes but is not limited to, programs of the Federal Highway Administration and the Federal Emergency Management Agency.

1.6 Definitions

The following terms, when used in the Contract Documents, have the meaning described.

- 1.6.1 Traffic Signal Repair Crew: A group of properly trained personnel with appropriate equipment to perform Traffic Signal Repair Operations, which at a minimum includes: three personnel with a bucket truck that is accompanied by the equipment, materials, vehicles, and all incidental items sufficient to perform Traffic Signal Repair Operations and related tasks at hand. At least one member of each signal repair crew shall be certified as an International Municipal Signal Association ("IMSA") Traffic Signals Level I. At least one person shall possess an Intermediate TTC(MOT) Certification in accordance with the requirements detailed in the FDOT Temporary Traffic Control (Maintenance of Traffic) Training Handbook.
- 1.6.2 Traffic Signal Repair Operations. Performing permanent signal repairs as defined by the Federal Aid Emergency Relief Manual. Permanent repairs are those signal repairs undertaken after the occurrence of a disaster to restore the intersection to its pre-disaster condition.
- 1.7 The scope of work is further defined and detailed within the exhibits found attached to the draft contract agreement affixed to this solicitation package as well as within the plans associated with this project. Contractor is responsible for reviewing all documentation associated with this project.

2. SERVICES TO BE PROVIDED BY THE CONTRACTOR

Provide all equipment, labor, and materials necessary to perform the following listed services in accordance with all applicable federal, state, and local rules, regulations, and laws. All Traffic Signal Repair Operations must be performed by the Contractor in the presence of County personnel or their designated representative, unless otherwise authorized by the County.

2.1 FIELD OPERATION - TRAFFIC SIGNAL REPAIR OPERATIONS

- 2.1.1 Provide updates to the County reflecting repair activities performed at intervals as specified by the County.
- 2.1.2 Traffic signal equipment removed during the Contract is the property of the County, except for equipment as identified by the County and those damaged items listed directly below, that become property of the Contractor and disposed of in accordance with all applicable laws, rules, and regulations in areas provided by the Contractor:
- 2.1.3 Concrete or wood support poles, pedestals, any foundations, anchors and guy wires associated with same.
- 2.1.4 Conduit, pull boxes, signal cable, interconnect cable, loop wire, lead-in cable, wiring, cable attachment, and support hardware.
- 2.1.5 Power service assemblies, disconnects, meters, meter bases, and wiring, except for that equipment that is owned by or is used under agreement with any utility company or agency.
- 2.1.6 Controller cabinet foundations, traffic signal span assemblies, not including signal heads, span wire hangers, and hardware brackets.
- 2.1.7 Deliver equipment that is to remain in the ownership of the County to a County specified location within 24 hours of identification by the County. Provide an itemized inventory list to the County.
- 2.1.8 Coordinate with utility companies, as required, to permit safe operations and to prevent blockage of critical utility devices.
- 2.1.9 Immediately notify the County of any damage caused by the Contractor. Damage must be documented by the Contractor with digital photos and provided electronically to the County and the owner of the damaged property. Repair all damage caused in accordance with Article 7-1.1 of the Standard Specifications prior to final invoicing and at no expense to the County.

2.2 EQUIPMENT AND PERSONNEL

- 2.2.1 Use equipment and perform work in a manner to prevent damages to adjacent infrastructure facilities and adjacent rights-of-way, including all landscaped areas.
- 2.2.2 Clearly and legibly display the Contractor's or subcontractor's name on all vehicles and equipment.
- 2.2.3 Ensure all equipment safety devices recommended by the manufacturer are installed and properly maintained.
- 2.2.4 Park all vehicles and equipment not in use or remaining on the right-of-way overnight as close as possible to the right-of-way line and always outside of the applicable clear zone. Conduct all service and supply operations as close to the right-of-way line as possible. Do not park any equipment in the median, regardless of the width of the median, unless movement from the work area is determined by the Department to be prohibitive.
- 2.2.5 Always have the minimum number of Traffic Signal Repair Crews available for reporting directly to work sites specified in Section 1.0. The County may request Traffic Signal Repair Crews beyond the minimum number specified in Section 1.0, but the Contractor is not obligated to pre-position or deploy Traffic Signal Repair Crews above the minimum number specified in Section 1.0.
- 2.2.6 Perform all Traffic Signal Repair Operations under the supervision of a technician certified by the IMSA as a Level II Field Technician.
- 2.2.7 Ensure all contractor and subcontractor personnel have and utilize personal protective safety gear in accordance with OSHA requirements and company safety policies. Conduct safety meetings with field staff, as necessary.

- 2.2.8 Submit IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC(MOT)) Certifications of personnel assigned to fulfill the requirement of this contract.
- 2.2.9 Submit a list of equipment that shall be assigned to fulfill the requirement of this contract.
- 2.2.10 Attend planning meetings and submit reports as requested by the Department.

3. **SPECIFICATIONS:**

- 3.1 Perform all Traffic Signal Repair Operations under this Contract in accordance with the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (FY 2023-24), any Specifications detailed in this scope, and Standard Plans for Road and Bridge Construction (FY 2023-24).
- 3.2 Perform all Traffic Signal Repair Operations under this Contract in accordance with the Lee County Department of Transportation Supplemental Specifications for Traffic Signal and Street Lighting (January 2023).

4. **ATTACHMENT:**

- 4.1 Hurricane IAN Permanent Traffic Signal Repairs - Plan Set

End of Scope of Work and Specifications Section

SUPPLEMENTAL INFORMATION

These are provisions that are in relation to this solicitation only and have not been included in the County's standard Terms and Conditions or the Scope of Work. Failure to abide by any of the below provisions may serve as grounds for disqualification for award of this contract to the firm. The below provisions and those found herein pertaining to the grant funding of this project apply to any participating Contractor and shall be further understood to be incorporated into any subsequent agreement/contract executed between the Contractor and the County. It shall be further understood that these provisions shall be incorporated into any related agreements/contracts executed between the prime Contractor and any sub-contractors.

1. LAP DIVISION I SPECIFICATIONS

1.1 Following federal funding requirements, this project shall follow LAP Division I Specifications projects provided herein. Such specifications and any applicable exemptions or amendments have been incorporated and made part of this solicitation.

2. CURRENT CAPACITY

2.1 Contractor shall ensure and certify their Firm has the financial capacity to complete the project as described herein. Certification form is contained within this solicitation package and shall be completed in its entirety.

3. CONTRACTOR PURCHASED EQUIPMENT FOR STATE OR LOCAL OWNERSHIP

3.1 The purchase of equipment for state or local ownership is not allowed as part of this contract.

4. DISADVANTAGE BUSINESS ENTERPRISE (DBE)

4.1 The Florida Department of Transportation began its DBE race neutral program January 1, 2000. Contract specific goals are not placed on Federal/State contracts; however, the Department has an overall 9.91% DBE goal it must achieve.

4.2 Contractors shall follow DBE requirements as described herein through FDOT's standard specification section 7-24.

4.3 FDOT must maintain a statewide database of all firms that are participating or attempting to participate in FHWA-assisted contracts. The list must include all firms that bid on prime contracts or bid or quote subcontracts on FHWA-assisted projects, including both DBEs and non-DBEs. The Bid Opportunity List is used to record Bidders' information for all subcontractors or sub consultants who submitted bids to primes. All participating Bidders must enter their bid opportunity information in the [Equal Opportunity Compliance \(EOC\) System](#) within 3 business days of submission of the bid or proposal for all subcontractors or sub-consultants who quoted bids for FHWA-assisted projects.

5. DOMESTIC-OWNED CONTRACTOR LIMITATIONS

5.1 This request for bids or proposal shall not be limited to domestic-owned contractors and may not include or incorporate the Florida orders on business with Syria, Cuba, Iran, Sudan, and Israel. Any statements found that express the contrary shall be considered void and not applicable to the project described herein.

6. INCENTIVE/DISINCENTIVE CLAUSES

6.1 Incentive and/or Disincentive clauses are not applicable to this project and subsequent contract.

7. INDIAN PREFERENCE ON FEDERAL-AID PROJECTS (LABOR & EMPLOYMENT)

7.1 Indian preference on federal-aid projects is not applicable to this project and subsequent contract.

8. LOBBYING

8.1 General: Participating Contractors shall adhere to the Anti-Lobbying clause as provided herein. Following this clause, the participating Contractors are hereby notified they shall not have any contact, communicate with or discuss any matter relating in any way to the solicitation with any Commissioner, Evaluation Review Committee, agent or employee of the County other than the Procurement Management Director or their designee.

8.2 Federal-Aid Contracts:

8.3 By participating in this solicitation and completion of affixed affidavit the Contractor certifies that to the best their knowledge:

(1) No federal appropriated funds have been paid or shall be paid, by or on behalf of the Contractor, 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.

(2) If any funds other than federal appropriated funds have been paid or shall 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 Contractor shall complete and submit Standard

8.4 Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions

8.5 Submission of the certification found herein is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. 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.

8.6 The Contractor also agrees by submitting their proposal that they shall require that the language of the applicable certification found herein be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

9. LOCAL VENDOR PREFERENCE EXCLUSION

9.1 Local Vendor Preference Ordinance has been waived for this solicitation and any and all references contained herein are not applicable to this solicitation and subsequent contract.

10. NON-COLLUSION

10.1 Contractor shall declare, through completion of the declaration form found herein and participation with this solicitation that the Contractor has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with its bid.

11. OWNER FORCE ACCOUNT/COST-EFFECTIVE JUSTIFICATION

11.1 Owner Force Account / Cost-Effective Justification is not applicable or permissible to this project and subsequent contract.

12. PATENTED/PROPRIETARY MATERIALS

12.1 Patented/Proprietary Materials are applicable to this project. FDOT Procedure No. 630-020-005 has been followed with Florida Department of Transportation approval to allow for the specified product usage as described in form no. 630-020-07 and specifications contained herein. See approved Proprietary Product Certification Dated: February 2, 2017, issued by FDOT District 1.

13. PREQUALIFICATION

13.1 Florida Law (Chapter 337.14 F.S.) And Rules of the State of Florida, Department of Transportation, (Chapter 14-22, F.A.C.) require contractors to be prequalified with the Florida Department of Transportation in order to bid for the performance of road, bridge, or public transportation construction contracts greater than \$250,000.00. Contractors shall be prequalified as required by FDOT and as stated herein.

14. PREVAILING MINIMUM WAGE

14.1 Payment of predetermined minimum wages applies. The U.S. Department of Labor (USDOL) Wage Rates applicable to this contract are stated herein and applicable General Decisions(s) (Wage Tables) are obtainable through the Department's Office of Construction website.

15. PUBLIC AGENCIES IN COMPETITION WITH THE PRIVATE SECTOR

15.1 The County does not allow other Public Agencies to compete with or bid on construction projects against the private sector.

16. PUBLICLY-OWNED EQUIPMENT

16.1 The County does not allow publicly owned equipment in contract.

17. STATE (FLORIDA OR OTHER) PRODUCED MATERIALS

17.1 The County affirms that preference is not given to Contractors who purchase materials from Florida or any other specifically designated state.

18. STATE/LOCAL OWNED/FURNISHED/DESIGNATED MATERIALS

18.1 All materials required for this project shall be furnished by the Contractor. Materials shall not be furnished by the County nor purchased through way of Direct Material Purchase Order.

19. DEBARMENT & SUSPENSION

19.1 By participating in this solicitation and completion of affixed affidavit the Contractor certifies that:

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

20. TERMINATION FOR CAUSE AND/OR CONVENIENCE:

20.1 The County, by written notice to the Contractor, may terminate this Agreement with or without cause, in whole or in part, when the County determines in its sole discretion that it is in the County's best interest to do so. In the event of termination, the Contractor shall not incur any new obligations for the terminated portion of the Agreement after the Contractor has received notification of termination.

20.2 If the Agreement is terminated before performance is completed, the Contractor shall be paid following terms and conditions as found within the Contract / Agreement to be executed by the prime Contractor.

21. REMEDIES

21.1 In the event the Contractor fails to satisfactorily perform or has failed to adhere to the terms and conditions under this Agreement, the County may, upon fifteen (15) calendar days written notice to the Contractor and upon the Contractor's failure to cure within those fifteen (15) calendar days, exercise any one or more of the following remedies, either concurrently or consecutively:

- Withhold or suspend payment of all or any part of a request for payment.
- Require that the Contractor refund to the County any monies used for ineligible purposes under the laws, rules and regulations governing the use of these funds.
- Exercise any corrective or remedial actions, to include but not be limited to:
 - requesting additional information from the Contractor to determine the reasons for or the extent of non-compliance or lack of performance;
 - issuing a written warning to advise that more serious measures may be taken if the situation is not corrected;
 - advising the Contractor to suspend, discontinue or refrain from incurring costs for any activities in question; or
 - requiring the Contractor to reimburse the County for the amount of costs incurred for any items determined to be ineligible.

21.2 Pursuing any of the above remedies shall not keep the County from pursuing any other rights or remedies which may be otherwise available under law or in equity. If the County waives any right or remedy in this Agreement or fails to insist on strict performance by the Contractor, it shall not affect, extend, or waive any other right or remedy of the County, or affect the later exercise of the same right or remedy by the County for any other default by the Contractor.

22. WARRANTY CLAUSES

22.1 Warranty provisions shall be for a specific construction product of feature. Items of maintenance are not eligible under federal projects and shall thus not be covered. General condition warranties for an entire project are prohibited under this contract. Transfer of product warranties is allowed under this contract.

23. INSPECTOR GENERAL

23.1 Pursuant to FL § 20.55(5), Consultant shall cooperate and comply with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to FL § 20.55.

24. CLEAN AIR ACT & FEDERAL WATER POLLUTION CONTROL ACT

24.1 The successful firm awarded a contract in excess of \$150,000 agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C 1251-1387). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

25. CONFLICT OF INTEREST

25.1 In addition to other Conflict of Interest terms contained herein, no member, officer or employee of the County during his tenure or for 2 years thereafter shall have any interest, direct or indirect, in the Contract or the proceeds thereof.

26. PREQUALIFICATION

26.1 Florida Law (Chapter 337.14 F.S.) And Rules of the State of Florida, Department of Transportation, (Chapter 14-22, F.A.C.) require contractors to be prequalified with the Florida Department of Transportation in order to bid for the performance of road, bridge, or public transportation construction contracts greater than \$250,000.00. Contractors shall be prequalified as required by FDOT and as stated herein.

End of Supplemental Information Section

LEE COUNTY DOCUMENT MANAGEMENT FORM

For

B230008BAG Hurricane Ian Permanent Signal Repair

These forms are required as indicated below and all required forms should be submitted with the Bidder's/Proposer's submission package. If it is determined that forms in this selection are not applicable to your company or solicitation they should be marked "N/A or Not Applicable" across the form in large letters and returned with your submission package.

FORM #	TITLE / DESCRIPTION	REQUIRED STATUS (Required, Not Required, If Applicable)	VENDOR CHECK-OFF
1	Solicitation Response Form	Required	
1a	Bid/Proposal Form	Required	
N/A	Business Relationship Disclosure Requirement	If Applicable	
2	Affidavit Certification Immigration Laws	Required	
3	Reference Survey <i>*(Requested after opening of lowest Bidder only)</i>	Required	
4	Negligence or Breach of Contract Disclosure Form	Required	
5	Sub-Contractor List	Required	
6	Public Entity Crime Form	Required	
7	Trench Safety	Required	
8	Bid Bond	Required	
9	Minimum Qualifications Requirements	Required	
*	Proposal Label	Required	
ADDITIONAL REQUIRED DOCUMENTS			
525-010-46	LAP Certification of Current Capacity	Required	
375-030-33	Certification for Disclosure of Lobbying Activities	Required	
375-030-34	Disclosure of Lobbying Activities	Required	
575-060-13	Non-Collusion Declaration and Compliance with 49 CFR § 29	Required	
375-030-32	Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion	Required	
630-020-07	Proprietary Product Certification	Review Only	X
275-030-11	DBE BID PACKAGE INFORMATION **REMINDER: Bidder MUST report to Equal Opportunity Compliance system within 3 days of bid submission.	Review Only	X
*	Evidence of Enrollment in the E-Verify Program (Profile or MOU)	Required	

It is the Bidder's/Proposer's responsibility to review the submittal request in its entirety and ensure that all submittal requirements are included within their submission package. Failure to submit required forms may deem your company as non-responsive.

FORMS DESCRIPTION & INSTRUCTIONS

INVITATION TO BID

This table provides a brief list, description, and instructions regarding the standard requested forms that should be submitted with all bids or proposals. This is not intended to be an all-inclusive list of forms required for your submission, but rather a guide to assist in completion of the County's standard forms. Bidders/Proposers should utilize the Lee County Document Management Form for a complete list of all forms required for project submission.

<u>Form #</u>	<u>Title/Description</u>
---------------	--------------------------

1	<i>Solicitation Response Form</i>
----------	--

	All signatures must be by a corporate authorized representative, witnessed, and corporate and/or notary seal (as applicable.) The corporate or mailing address must match the company information as it is listed with the Florida Department of State Division of Corporations. Attach a copy of the webpage(s) from http://www.sunbiz.org as certification of this required information. Sample attached for your reference.
--	--

	Verify that all Addenda and tax identification number have been provided.
--	---

1a	<i>Bid/Proposal Form</i>
-----------	---------------------------------

	This form is used to provide itemization of project cost. A more detailed "schedule of values" may be requested by the County.
--	--

N/A	<i>Business Relationship Disclosure Requirement</i>
------------	--

	Sections 112.313(3) and 112.313(7), F.S., prohibit certain business relationships on the part of public officers and employees, their spouses, and their children. If this <u>disclosure is applicable, the Bidder must request the form entitled "INTEREST IN COMPETITIVE BID FOR PUBLIC BUSINESS"</u> (Required by § 112.313(12)(b), F.S.) to be completed and <u>returned with the Solicitation Response</u> . It is the Bidder's responsibility to request the form and disclose this relationship; failure to do so may result in being declared non-responsive.
--	--

	NOTICE: UNDER THE PROVISIONS OF § 112.317, F.S., A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR, AND MAY BE PUNISHED BY, ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED \$10,000.00.
--	---

2	<i>Affidavit Certification Immigration Laws</i>
----------	--

	Submission of this form constitutes acknowledgement that the Bidder is in compliance in regard to all applicable immigration laws.
--	--

3	<i>Reference Survey</i>
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	Provide this form to reference respondents. <u>For Bids, this form shall be requested from the apparent low Bidder prior to the award. (Not required to submit with bid)</u>
--	--

- | | |
|--|--|
| | <ol style="list-style-type: none">1. Section 1: Bidder/Proposer to complete with <u>reference respondent's</u> information prior to providing to them for their response. (This is not the Bidder/Proposer's information.)2. Section 2: Enter the name of the Bidder/Proposer; provide the project information in which the reference respondent is to provide a response.3. The <u>reference respondent</u> should complete "Section 3."4. Section 4: The reference respondent to print and sign name5. Three (3) Reference responses are to be provided upon request.6. Failure to obtain reference surveys may make your company non-responsive. |
|--|--|

4 ***Negligence or Breach of Contract Disclosure Form***

The form may be used to disclose negligence or breach of contract litigation that your company may have been a part of over the past ten (10) years. You may need to duplicate this form to list all history. If the Bidder has more than ten (10) lawsuits, you may narrow them to litigation of the company or subsidiary submitting the Solicitation Response. Include, at a minimum, litigation for similar projects completed in the State of Florida. Final outcome should include in whose favor the litigation was settled and whether a monetary amount was awarded. The settlement amount may remain anonymous.

If you have **no litigation**, enter **“None”** in the first **“type of incident”** block of the form. Please do not write N/A on this form.

5 ***Sub-Contractor/Consultant List***

To be completed and returned when sub-contractor/consultants are to be utilized and are known at the time of the submission.

6 ***Public Entity Crime Form***

Any person or affiliate, as defined by statute, who has been placed on the convicted vendor list following a conviction for a public entity crime, may not submit a Bid on a Contract to provide any goods or services to the County; may not submit a Bid on a contract with the County for the construction or repair of a public building or a public work; may not submit Bids or leases of real property to the County; may not be Awarded or perform Work as a contractor, supplier, subcontractor, or consultant under a contract with the County, and may not transact business with the County in excess of \$25,000.00 for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

7 ***Trench Safety***

Typically required in construction projects where trench excavations are in excess of 5 feet deep per Florida Trench Safety Act (90-96, Laws of Florida)

8 ***Bid Bond***

Guarantee to County that Bidder/Proposer shall take on job if selected.

9 ***Minimum Qualifications Requirements***

States the minimum qualifications the Bidder/Proposer is required to meet in order to be considered for award or evaluation.

***** ***Bid/Proposal Label***

Self-explanatory. Please affix to the outside of the sealed submission documents.

***** ***Include any licenses or certifications requested***

Local Business Tax Account (as applicable) issued by City and/or County entity. This is necessary for all Florida vendors.

It is the Bidder's responsibility to ensure the Solicitation Response is mailed or delivered in time to be received no later than the specified opening date and time. (If Solicitation is not received prior to the deadline, it cannot be considered or accepted)

Form 1 – Solicitation Response Form



LEE COUNTY PROCUREMENT MANAGEMENT
SOLICITATION RESPONSE FORM

Date Submitted: _____ Bid Due Date: 8/8/2023

SOLICITATION IDENTIFICATION: B230008BAG

SOLICITATION NAME: Hurricane Ian Permanent Signal Repair

COMPANY NAME: _____

NAME & TITLE: (TYPED OR PRINTED) _____

BUSINESS ADDRESS: (PHYSICAL) _____

CORPORATE OR MAILING ADDRESS: _____

☐ SAME AS PHYSICAL

ADDRESS MUST MATCH SUNBIZ.ORG

E-MAIL ADDRESS: _____

PHONE NUMBER: _____ FAX _____

NOTE **REQUIREMENT**: IT IS THE **SOLE RESPONSIBILITY OF THE BIDDER/PROPOSER TO CHECK THE LEE COUNTY PROCUREMENT MANAGEMENT WEB SITE** FOR ANY ADDENDA ISSUED FOR THIS PROJECT. THE COUNTY SHALL POST ADDENDA TO THIS WEB PAGE BUT SHALL **NOT NOTIFY**.

By responding to this sealed Solicitation, the Bidder/Proposer makes all representations required by the instructions and further warrants and represents that: Bidder/Proposer has examined copies of all the Solicitation Documents and of the following Addenda:

No. _____	Dated: _____	No. _____	Dated: _____	No. _____	Dated: _____
No. _____	Dated: _____	No. _____	Dated: _____	No. _____	Dated: _____

Taxpayer Identification Number: _____

(1) Employer Identification Number -**OR-** (2) Social Security Number:

**** Lee County collects your social security number for tax reporting purposes only**

Please submit a copy of your registration from the website www.sunbiz.org establishing your firm as authorized (including authorized representatives) to conduct business in the State of Florida, as provided by the *Florida Department of State, Division of Corporations*. (a sample is attached for your reference)

1 **Collusion Statement**: Lee County, Florida. The undersigned, as Bidder/Proposer, hereby declares that no person or other persons, other than the undersigned, are interested in this Solicitation as principal, and that this Solicitation is submitted without collusion with others; and that they have carefully read and examined the Specifications or Scope of Work, and with full knowledge of all conditions under which the services herein is contemplated must be furnished, hereby Bid and agree to furnish this service according to the requirements set out in the Solicitation Documents, Specifications or Scope of Work for said service for the prices as listed on the County provided price sheet or (CCNA) agree to negotiate prices in good faith if a contract is Awarded.

2 **Scrutinized Companies Certification**:

Section 287.135, F.S, entitled "Prohibition against contracting with scrutinized companies" prohibits agencies from contracting with companies, for goods or services over \$1,000,000, that are on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Scrutinized Companies that Boycott Israel List, have been engaged in a boycott of Israel, or been engaged in business operations in Cuba or Syria. The County reserves the right to review, on a case-by-case basis, and waive this stipulation if it is deemed advantageous to the County.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above is in compliance with Section 287.135, F.S. I understand that submission of a false certification may subject company to contract termination, civil penalties, attorney's fees, and/or costs.

Form 1 – Solicitation Form, Page 2

- 3 **Business Relationship Disclosure Requirement:** Sections 112.313(3) and 112.313(7), F.S., prohibit certain business relationships on the part of public officers and employees, their spouses, and their children. See Part III, Chapter 112, F.S., and/or the brochure entitled "A Guide to the Sunshine Amendment and Code of Ethics for Public Officers, Candidates and Employees" for more details on these prohibitions. However, Section 112.313(12), F.S., provides certain limited exemptions to the above-referenced prohibitions, including one where the business is awarded under a system of sealed, competitive bidding; the public official has exerted no influence on bid negotiations or specifications; and where disclosure is made, prior to or at the time of the submission of the bid, of the official's or his/her spouse's or child's interest and the nature of the intended business. The Commission on Ethics has promulgated this form for such disclosure, if and when applicable to a public officer or employee.

If this disclosure is applicable, the Bidder must request form “*INTEREST IN COMPETITIVE BID FOR PUBLIC BUSINESS*” (Required by 112.313(12)(b), F.S.) to be completed and returned with Solicitation Response. It is the Bidder/proposer’s responsibility to disclose this relationship, failure to do so could result in being declared non-responsive.

<input type="checkbox"/>	<i>Business Relationship Applicable (request form)</i>	<input type="checkbox"/>	<i>Business Relationship NOT Applicable</i>
Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE)		<input type="checkbox"/>	<input type="checkbox"/>
4 Proposer? If yes, please attach a current certificate.		Yes	No

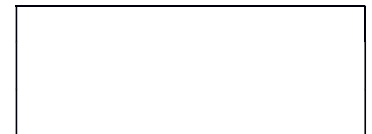
ALL SUBMISSIONS MUST BE EXECUTED BY AN AUTHORIZED AUTHORITY OF THE BIDDER/PROPOSER. WITNESSED AND SEALED (AS APPLICABLE)

Company Name (Name printed or typed)

Authorized Representative Name (printed or typed)

Authorized Representative’s Title (printed or typed)

Authorized Representative’s Signature



(Affix Corporate Seal, as applicable)

Witnessed/Attested by:

(Witness/Secretary name and title printed or typed)

Witness/Secretary Signature

Any blank spaces on the form(s), qualifying notes or exceptions, counter offers, lack of required submittals, or signatures, on County’s form may result in the submission being declared non-responsive by the County.

Bidders may not adjust or modify County-authored data as provided within the Bid Schedule. Bids received with modified data may deem the Bidder as non-responsive and ineligible for award.

Detail by Entity Name**Florida Profit Corporation**

Bill's Widget Corporation

Filing Information

Document Number 655555
FEI/EIN Number 5111111111
Date Filed 09/22/1980
State FL
Status ACTIVE
Last Event AMENDED AND RESTATED ARTICLES
Event Date Filed 07/25/2006
Event Effective Date NONE

Principal Address

555 N Main Street
Your Town, USA 99999
Changed 02/11/2012

Mailing Address

555 N Main Street
MYour Town, USA 99999
Changed 02/11/2012

Registered Agent Name & Address

My Registered Agent
111 Registration Road
Registration, USA99999

Name Changed: 12/14/2006

Address Changed: 12/14/2006

Officer/Director Detail**Name & Address**

Title P

President, First
555 AVENUE
Anytown, USA99999

Title V

President, Second
555 AVENUE
Anytown, USA99999



Lee County Procurement Management
BID/PROPOSAL FORM

Company Name: _____

Solicitation # B230008BAG Solicitation Name Hurricane Ian Permanent Signal Repair

This page serves as a header/placeholder only. Please refer to the Excel document provided with the solicitation for the complete Bid Schedule. The Excel document contains formulas for convenience; however, it is the Contractor's responsibility to verify all pricing and calculations are CORRECT. Lee County is not responsible for errors in formulas or calculations contained within Excel document(s).

REMINDER: In the event there is a discrepancy between the total quoted amount, or the extended amounts and the unit prices quoted, the unit prices shall prevail, and the corrected sum shall be considered the quoted price.

The County shall only accept bids submitted on bid forms provided by the County. Bids submitted on other forms, other than those provided by the County, shall deem Bidder as non-responsive and ineligible for award.

Bidders may not adjust or modify County-authored data as provided within the Bid Schedule. Bids received with modified data may deem the Bidder as non-responsive and ineligible for award.

PLEASE ENSURE you have provided a printed copy of the Bid Schedule with your hard copy submission packages and provided the excel version with your digital submission package.

PRICING

Pricing shall be inclusive of all labor, equipment, supplies, overhead, profit, materials, and any other incidental costs required to perform and complete all work as specified herein.



AFFIDAVIT CERTIFICATION IMMIGRATION LAWS

SOLICITATION NO.: **B230008BAG** SOLICITATION NAME: **Hurricane Ian Permanent Signal Repair**

LEE COUNTY SHALL NOT INTENTIONALLY AWARD COUNTY CONTRACTS TO ANY CONTRACTOR WHO KNOWINGLY EMPLOYS UNAUTHORIZED ALIEN WORKERS, CONSTITUTING A VIOLATION OF THE EMPLOYMENT PROVISIONS CONTAINED IN 8 U.S.C. SECTION 1324 a(e) {SECTION 274A(e) OF THE IMMIGRATION AND NATIONALITY ACT ("INA").

LEE COUNTY MAY CONSIDER THE EMPLOYMENT BY ANY 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 THE CONTRACT BY LEE COUNTY.** PROPOSER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

BY REGISTERING AS A VENDOR, SUBMITTING A RESPONSE TO A SOLICITATION, OR ENTERING INTO A CONTRACT, YOU ARE OBLIGATED TO COMPLY WITH THE PROVISIONS OF SECTION 448.095, FLA. STAT., "EMPLOYMENT ELIGIBILITY." FURTHER, BY YOUR REGISTRATION AS A VENDOR, RESPONSE TO A SOLICITATION, ENTERING INTO A CONTRACT, YOU AFFIRM AND REPRESENT THAT YOU ARE REGISTERED WITH THE E-VERIFY SYSTEM AND ARE USING SAME, AND SHALL CONTINUE TO USE SAME AS REQUIRED BY SECTION 448.095, F.S. COMPLIANCE WITH SECTION 448.095 INCLUDES, BUT IS NOT LIMITED TO, UTILIZATION OF THE E-VERIFY SYSTEM TO VERIFY THE WORK AUTHORIZATION STATUS OF ALL NEWLY HIRED EMPLOYEES, AND REQUIRING ALL SUBCONTRACTORS TO PROVIDE AN AFFIDAVIT ATTESTING THAT THE SUBCONTRACTOR DOES NOT EMPLOY, CONTRACT WITH, OR SUBCONTRACT WITH, AN UNAUTHORIZED ALIEN. FAILURE TO COMPLY SHALL LEAD TO TERMINATION AS A VENDOR, DISQUALIFYING YOU FOR AWARD OF A SOLICITATION, DENIAL OF ENTERING INTO A CONTRACT AND/OR, CANCELLATION OF AN ACTIVE CONTRACT, OR IF YOUR SUBCONTRACTOR KNOWINGLY VIOLATES THE STATUTE, THE SUBCONTRACT MUST BE TERMINATED IMMEDIATELY. ANY CHALLENGE TO TERMINATION UNDER THIS PROVISION MUST BE FILED NO LATER THAN 20 CALENDAR DAYS AFTER THE DATE OF TERMINATION. IF TERMINATED FOR A VIOLATION OF THE STATUTE BY THE VENDOR, THE VENDOR MAY NOT BE ALLOWED TO DO BUSINESS WITH THE COUNTY OR BE AWARDED A SOLICITATION OR CONTRACT FOR A PERIOD OF 1 YEAR AFTER THE DATE OF TERMINATION. ALL COSTS INCURRED TO INITIATE AND SUSTAIN THE AFOREMENTIONED PROGRAMS SHALL BE THE RESPONSIBILITY OF THE VENDOR.

Company Name: _____

Signature Title Date

STATE OF _____
COUNTY OF _____

The foregoing instrument was signed and acknowledged before me, by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 20____, by _____ who has produced

(Print or Type Name)

_____ as identification.

(Type of Identification)

Notary Public Signature

Printed Name of Notary Public

Notary Commission Number/Expiration

The signee of this Affidavit guarantee, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made. **LEE COUNTY RESERVES THE RIGHT TO REQUEST SUPPORTING DOCUMENTATION, AS EVIDENCE OF SERVICES PROVIDED, AT ANY TIME.**

****REQUIRED OF THE LOWEST APPARENT BIDDER ONLY****

Reference surveys submitted can be a maximum of twelve (12) months old. If using a previous reference, Proposers must clearly identify the project name and number the reference is being submitted for.

Project Name & Number: _____

Section 1	Reference Respondent Information	Please return completed form to:	
FROM:	_____	Bidder/Proposer:	
COMPANY:	_____	Due Date:	
PHONE #:	_____	Total # Pages: 1	
FAX #:	_____	Phone #: Fax #:	
EMAIL:	_____	Bidder/Proposer E-Mail:	

Section 2	Enter Bidder/Proposer Information, as applicable Similar Performed Project (Bidder/Proposer to enter details of a project performed for above reference respondent)		
Bidder/Proposer Name:	_____		
Reference Project Name:	Project Address:	Project Cost:	
_____	_____	_____	_____
Summarize Scope:	_____	_____	_____

You as an individual or your company has been given as a reference on the project identified above. Please provide your responses in Section 3 below.

Section 3		Indicate: "Yes" or "No"
1. Did this company have the proper resources and personnel by which to get the job done?		
2. Were any problems encountered with the company's work performance?		
3. Were any change orders or contract amendments issued, other than owner initiated?		
4. Was the job completed on time?		
5. Was the job completed within budget?		
6. On a scale of one to ten, ten being best, how would you rate the overall work performance, considering professionalism; final product; personnel; resources. Rate from 1 to 10. (10 being highest)		
7. If the opportunity were to present itself, would you rehire this company?		
8. Please provide any additional comments pertinent to this company and the work performed for you:		

Section 4	Please submit non-Lee County employees as references
------------------	---

Reference Name (Print Name)

Reference Signature



ALLEGED NEGLIGENCE/BREACH OF CONTRACT/NON-COMPLIANCE WITH GOVERNMENTAL REGULATION FORM

“Please fill in the form below. Provide details for each incident of alleged negligence, breach of contract or non-compliance with governmental regulation that has occurred over the past 10 years. Examples of non-compliance with governmental regulation include but are not limited to zoning violations, code enforcement violations, civil or criminal citations, denial, or revocation of permits. Provide details for all entities currently or previously owned in whole or in part by the proposer in the last 10 years. Please complete in chronological order with the most recent incident starting on page 1. Please do not modify this form (expansion of spacing allowed) or submit your own variation.”

Company Name: _____

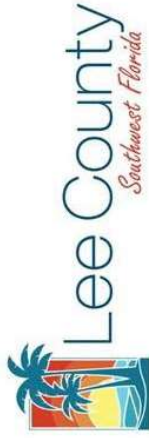
Type of Incident <i>Alleged Negligence, Breach of Contract, or Non-Compliance</i>	Incident Date And Date Filed	Plaintiff <i>(Company, person, entity- acted against your company or state if your company initiated the action)</i>	Case Number	Court <i>(Name of State and County)</i>	Project <i>(Address and Name)</i>	Allegation <i>(Stated reason your company was accused of negligence, breach of contract or non- compliance of governmental regulation or the allegations your company made)</i>	Final Outcome <i>(Who prevailed and how)</i>

Make as many copies of this sheet as necessary to **provide a 10-year history** of the requested information. If there is no action pending or action taken in the last 10 years, complete the **company name** and write **“NONE”** in the first **“Type of Incident”** box of this page and return with your proposal package. This form should also include the primary partners listed in your proposal. Do not include litigation with your company as the plaintiff. Final outcome should include who prevailed and what method of settlement was made. If a monetary settlement was made the amount may remain anonymous.

Proposals may be declared “non-responsive” due to omissions of “Negligence or Breach of Contract” on this disclosure form. Additionally, proposals may be declared “not responsible” due to past or pending lawsuits that are relevant to the subject procurement such that they call into question the ability of the proposer to assure good faith performance. This determination may be made by the Procurement Management Director, after consulting with the County Attorney.

Page Number: _____ Of _____ Total pages

Form 5 - Sub-contractor/consultant List



SUB-CONTRACTOR/CONSULTANT LIST

Sub-Contractor/Consultant Company Name	Area Of Work	Point Of Contact Or Project Supervisor	Contact Info Phone or Email	Qualified DBE, MBE, WBE, VBE or Similar	Amount or Percentage of Total

Please include sub-contractor/consultant name, area of work (i.e., mechanical, electrical, etc.) and a **valid** phone number and/or email. Also include the dollar value or percentage that the sub-contractor/consultant shall be performing. If sub-contractor/consultant qualifies as a current certificate Florida Certified Business Enterprise such as MBE, WBE, DBE, VBE or similar please indicate such above and provide proof of

**Public Entity Crime
Form**

This form must be signed and sworn to in the presence of a notary public or other officer authorized to administer oaths.

1. This sworn statement is submitted to _____
(Print name of the public entity)
- by _____
(Print individual's name and title)
- for _____
(Print name of entity submitting sworn statement)
- whose business address is _____
- (If applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: On the attached sheet.) Required as per IRS Form W-9.

2. I understand that a "public entity crime" as defined in Section 287.133(1) (g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, a bid or contract for goods or services to be provided to any public entity or agency or political subdivision or any other state or of the United States, and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Section 287.133(1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that "affiliate" as defined in Section 287.133(1)(a), Florida Statutes, means:
1. A predecessor or successor of a person convicted of a public entity crime:
or:
 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those offices, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not fair market value under an arm's length Agreement/Contract, shall be a facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding thirty-six (36) months shall be considered an affiliate.
5. I understand that a "person" as defined in Section 287.133(1) (c), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of the entity.
6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting those sworn statement. *(Please indicate which statement applies)*

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity nor affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, member, or agents who are active in management of the entity, or an affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, member, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearing and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH ONE ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OR ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(Signature)

(Date)

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me, by means of ☐ physical presence or ☐ online notarization, this _____ day of _____ 20____, by _____ who has produced
(Print or Type Name)

_____ as identification.
(Type of Identification)

Notary Public Signature

Printed Name of Notary Public

Notary Commission Number/Expiration

TRENCH SAFETY

Contractor/vendor acknowledges that included in the appropriate Solicitation items of the Solicitation and in the total Solicitation price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The contractor/vendor further identifies the costs of such compliance to be summarized below:

	Trench Safety Measure (Description)	Units of Measure (LF, SF)	Unit (Quantity)	Unit Cost	Extended Cost
				
A.	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	_____
	TOTAL \$ _____				

If applicable, the contractor/vendor certifies that all trench excavation done within its control in excess of five feet (5') in depth shall be in accordance with the Florida Department of Transportation's Special Provisions Article 125-1 and Sub-article 125-4.1 (TRENCH EXCAVATION SAFETY SYSTEM AND SHORING, SPECIAL-TRENCH EXCAVATION).

Failure to complete the above may result in the Solicitation being declared non-responsive.

(Signature)

(Company Name)

STATE OF _____
COUNTY OF _____

The foregoing instrument was signed and acknowledged before me, by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 20____, by _____ who has produced _____
(Print or Type Name)

_____ as identification.
(Type of Identification)

(NOTARY PUBLIC)

My Commission Expires: _____

BID BOND

Complete EITHER Lee County Paper Bid Bond OR provide cashier's check

KNOW ALL MEN BY THESE PRESENTS, that we

_____ as Principal, and
(BIDDER'S Name)

_____ a corporation licensed to do
(Surety's Name)

business under the laws of the State of Florida as a Surety, are held and firmly bound unto LEE COUNTY BOARD OF COUNTY COMMISSIONERS, LEE COUNTY, FLORIDA, a political subdivision of the State of Florida,

in the SUM OF _____
for the payment whereof, well and truly to be made, we bind ourselves, our heirs, successors, personal representatives, and assigns, jointly and severally, firmly, by these presents.

SIGNED AND SEALED this _____ day of _____, _____

WHEREAS, said Principal is herewith submitting a Bid/Proposal for the project know as:

B230008BAG Hurricane Ian Permanent Signal Repair

NOW, THEREFORE, the condition of the above obligation is such that if said Principal shall be Awarded the Contract upon said Bid/Proposal within the specified time and shall enter into a written Contract, satisfactory in form, provide an acceptable Public Performance and Payment Bond from a Surety acceptable to the County and provide other insurance as may be required to the County within seven (7) calendar days after the written Notice of Intent to Award date, or within such extended period as the County may grant, then this obligation shall be null and void; otherwise said Principal and Surety shall pay to said County in money the difference between the amount of the Bid of said Principal and the amount for which said County may legally contract with another party to perform said Work, if the latter amount be in excess of the former, together with any expenses and reasonable attorney's fees incurred by said County if suit be brought hereon, but in no event shall said Surety's liability exceed the penal sum hereof plus such expenses and attorney's fees. For purposes of unsuccessful bid protests filed by the Principal herein, this obligation shall bind the Surety to pay costs and damages associated with the bid protest or delays to the project upon a finding from the Board of County Commissioners for Lee County that the bid protest was frivolous and/or lacked merit. The liability of the Surety shall not exceed the penal sum of the bid bond.

Witness as to Principal:

_____ (SEAL)
(Principal)

(By)

Printed Name

Witness as to Surety:

_____ (SEAL)
(Surety's Name)

(By-As Attorney-in-Fact, Surety)

Affix Corporate Seals and attach proper Power of Attorney for Surety.



MINIMUM QUALIFICATION REQUIREMENTS
FOR
B230008BAG Hurricane Ian Permanent Signal Repair

Bidder(s)/Proposer(s) must meet the minimum qualification requirements as specified in the following form to qualify for consideration of award. This form must be completed and returned with the proposal submittal along with any supporting documentation where requested and/or indicated herein.

The County reserves the right, in their sole judgment, to determine to its satisfaction whether the Bidder(s)/Proposer(s) has met the minimum qualification requirements as specified herein. The determination shall be based upon the examination of the Minimum Qualification Requirements form and associated supportive documentation (if any requested).

An affirmative determination shall be a prerequisite for award of the contract to the Bidder(s)/Proposer(s). A negative determination shall result in disqualification of the proposal, in which event the County shall exclude the proposal from the evaluation or consideration process and therefore deeming the Bidder(s)/Proposer(s) ineligible for award.

1. CRITERIA 1 – FDOT Pre-Qualified Contractor for Work Classes 8, 16 and 39 as described herein: Contractor must be FDOT certified and have provided proof of certification at time of bid submission.

- a. **Work Class 8, Electrical Work**
- b. **Work Class 16, Intelligent Transportation Systems**
- c. **Work Class 39, Traffic Signal**

Is your Firm FDOT Certified and did you submit your FDOT Certification of Qualification?

_____ YES _____ NO

If YES, provide details as requested below:

- Provide a copy of the FDOT with submission.
 - o Failure to provide evidence of FDOT certification may deem your firm as non-responsive.

2. CRITERIA 2 - LICENSING AND CERTIFICATION: At least one member of the Electrical Contracting Firm shall hold a State Master Certificate of Competency.

Does at least one member of your Firm hold a State Master Certificate of Competency?

_____ YES _____ NO

If YES, provide details as requested below:

NAME: _____
POSITION TITLE: _____
LENGTH OF EMPLOYMENT
(IN CURRENT POSITION): _____
LICENSE NUMBER: _____
LICENSURE DATE: _____

3. **CRITERIA 3 – IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC(MOT)) Certifications:** Contractor must submit IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC (MOT)) Certifications of personnel assigned to fulfill the requirement of this contract.

Is your IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC(MOT)) Certified and did you submit your IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC(MOT)) Certification of Qualification?

_____ **YES** _____

If YES, provide details as requested below:

- Provide a copy of the IMSA Level I & II and Temporary Traffic Control (Maintenance of Traffic) (TTC(MOT)) Certification with submission.
 - o Failure to provide evidence of ISMA certification may deem your firm as non-responsive.

Authorized Bidder/Proposer Signature

Date

:

Authorized Bidder/Proposer Name (Print or Type)

**Cut along the outer border and affix this label to
your sealed solicitation envelope to identify it as
a “Sealed Bid”.**

SEALED BID DOCUMENTS • DO NOT OPEN	
BID No.:	B230008BAG
BID TITLE:	PERMANENT REPAIR OF DAMAGED TRAFFIC SIGNALS AS A RESULT OF HURRICANE IAN
DATE DUE:	Tuesday, August 8, 2023
TIME DUE:	Prior to: 2:30 PM
SUBMITTED BY:	_____ (Name of Company)
e-mail address	Telephone
DELIVER TO:	Lee County Procurement Management 2115 Second Street, 1 st Floor Fort Myers FL 33901



***Notice:** The Date Due/Bid Due Date/Opening Date as stated on this label and other forms contained herein may have been updated via issuance of Addenda against this project. It is the sole responsibility of the Contractor to monitor the County project webpage for any updates to the Date Due/Bid Due Date/Opening Date via Addenda. This label nor other original forms may not be updated. Contractor may strike through and update Date Due/Bid Due Date/Opening Date at their discretion to match any updates to this date that have been published via Addenda.

Submission received after the time and date of the Date Due/Bid Due Date/Opening Date shall not be acceptable at the sole discretion of the County.

PLEASE PRINT CLEARLY

DRAFT CONSTRUCTION AGREEMENT

CONSTRUCTION AGREEMENT

LEE COUNTY, a political subdivision of the State of Florida, by and through its Board of County Commissioners, situated at 2115 Second St., Fort Myers, FL 33901 (the "County"), hereby contracts with [Contractor's name **exactly** as it appears on Sunbiz] (the "Contractor") of [Contractor's primary business address] a [Contractor's state] contractor licensed to perform all Work in the State of Florida in connection with the County's Solicitation No. [Solicitation Number and Project Name] (the "Project"), as said Work is set forth in the Plans and Specifications prepared by [Engineer of Record's name], the "Engineer of Record," and other Contract Documents hereafter specified (the "Work").

The County and the Contractor, for the consideration herein set forth, agree as follows:

Section 1. Contract Documents.

A. The Contract Documents consist of this Agreement, the Exhibits described in Section 6 hereof, the legal advertisement, the instructions to bidders, the Proposal and Proposal Forms, the solicitation documents and any duly executed and issued addenda, the Contractor's proposal, Change Orders, Field Directive Change Orders, and amendments relating thereto. All of the foregoing Contract Documents are incorporated by reference and made a part of this Agreement with the exception of the solicitation which shall be incorporated to the extent that it does not conflict with the remainder of the Agreement (all of said documents including the Agreement sometimes being referred to herein as the "Contract Documents" or "Contract" and sometimes as the "Agreement"). A copy of the Contract Documents shall be maintained by Contractor at the Project Site at all times during the performance of the Work.

B. The Engineer of Record is the initial interpreter of the Contract Documents concerning design intent, but is not the judge between the County and the Contractor. The County reserves the right to make final decisions considering the Engineer of Record's recommendations or interpretations of the Contract Documents. The Engineer of Record does not have authority to obligate or commit the County to fund additional expenditures or approve extensions of time over the approved Contract Time or Amount. However, the Engineer of Record's interpretation as to the intent of her or his design shall be final and not subject to interpretation by the County's staff.

C. The Construction Engineering and Inspection Consultant ("CEI Consultant") is the initial interpreter of the Contract Documents in all matters not concerning design intent. The CEI Consultant shall administer, monitor, test, sample, and inspect the Construction of the Project to ensure that the Project is constructed in reasonable conformity with the plans, specifications, and special provisions of the Contract Documents and shall observe the Contractor's work to determine the progress and quality of work, identify discrepancies, report significant discrepancies to the County, and direct the Contractor to correct such observed discrepancies. The County reserves the right to make final decisions considering the CEI Consultant's recommendations or

interpretations of the Contract Documents. The CEI Consultant may issue Field Directive Change Orders to the Contractor, but the CEI Consultant does not have authority to change the scope of the Project, obligate or commit the County to fund additional expenditures, or approve extensions of time over the approved Contract Time or Amount. The CEI Consultant shall consult with the Engineer of Record regarding any questions concerning the intent of the Project design.

D. Any Work that may be reasonably inferred from the Plan and Specifications as being required to produce the intended result shall be supplied whether or not it is specifically called for. In case of any inconsistency or conflict among the provisions of the Contract Documents, the order of precedence shall be as follows: (1) Change Orders; (2) the Agreement, including amendments and Exhibits; (3) Field Directive Change Orders; (4) the solicitation documents, including any addenda. Exhibit E, Article 5-2 provides the order of precedence for Specifications, Plans, Special Provisions, Technical Special Provisions, and other Project specifications. The Contract Documents represent the entire and integrated Agreement between the parties hereto, and supersede prior negotiations, representations, or agreements, either written or oral.

E. Work, materials or equipment described in words which have a well-known technical or trade meaning, shall be deemed to refer to such recognized standards.

F. The County shall furnish to the Contractor Contract Documents in electronic form and PDF file format.

G. The Contractor agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the County.

H. The Work to be provided by Contractor for the Project shall be under the general direction of the CEI Consultant, or their successor, who shall act as the County's representative during the term of this Agreement. If the County's representative is not a County employee, then County's representative is not authorized to issue changes to the Contract Amount, Contract Time, or Scope of Work without express approval by the County Director, County Manager, or Board of County Commissioners.

Section 2. Scope of Work.

A. The Contractor agrees to furnish and pay for all management, supervision, financing, labor, materials, tools, transportation, fuel, supplies, utilities, equipment and services of every kind and type necessary to diligently, timely, and fully perform and complete in a good and workmanlike manner the Work required by this Agreement.

B. The Work shall be prosecuted and administered in accordance with the Standard Specifications attached hereto and incorporated herein as Exhibit E.

Section 3. Contract Amount.

A. In consideration of the faithful performance by the Contractor of the covenants in this Contract to the full satisfaction and acceptance of the County, the County agrees to pay, or cause to be paid, to Contractor the following Contract Amount in accordance with the terms of this Agreement: \$[Contract amount in numbers] or in words: [Contract amount in words].

B. Measurement and payment provisions are provided in Division 1, Section 9 of the Standard Specifications attached hereto as Exhibit E.

Section 4. Bonds.

A. The Contractor shall provide and maintain through the life of the Contract, including the warranty period, Performance and Payment Bonds, in the form prescribed in the Exhibits to the Agreement, in the amount of 100% of the Contract Amount, the costs of which are to be paid by Contractor. If the Contract is increased by a Change Order, it shall be the Contractor's responsibility to ensure that the Performance and Payment Bonds are amended accordingly and a copy of the amendment recorded by the Lee County Clerk of Court and forwarded to the County. The Performance and Payment Bonds shall be underwritten by a Surety authorized to do business in the State of Florida and otherwise acceptable to the County; provided, however, the Surety shall be rated as "B or better" as to general policy holders rating as reported in the most current Best Key Rating Guide, published by A.M. Best Company, Inc.

B. Attorneys-in-Fact who sign Bonds for County projects must file with such Bond a certified copy of their Power of Attorney to sign such Bond. All agents of Surety companies must list their name, address, and telephone number on all Bonds. The life of all Bonds provided to the County shall extend twelve (12) months beyond the date of final payment and shall contain a waiver of alternation to the terms of the Contract, extensions of time and/or forbearance on the part of the County. The Surety must have fulfilled all of its obligations on all other Bonds previously provided to the County. The Surety must have a minimum underwriting limitation of \$5,000,000 published in the latest edition of the Federal Register for Federal Bonds (U.S. Dept. of Treasury).

C. If the Surety for any Bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in the State of Florida, or it ceases to meet the requirements imposed by the Contract Documents, the Contractor shall, within five (5) calendar days thereafter, substitute at Contractor's cost another Bond and Surety, both of which shall be subject to the County's approval.

D. If the Contractor cannot obtain another Bond and Surety within five (5) calendar days, the County may accept and the Contractor shall submit an irrevocable letter of credit drawn on a Lee County, Florida bank until the Bond and Surety can be obtained.

E. In case of default on the part of the Contractor, the County will charge against the Contract/Performance Bond all expenses for services incidental to ascertaining and collecting losses under the Contract/Performance Bond, including accounting, engineering, and legal services, together with any and all costs incurred in connection with renegotiation of the Contract.

F. The Surety shall indemnify and provide defense for the County when called upon to do so for all claims or suits against the County, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract where the Contractor has failed to timely provide the County such defense. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be modified by subsequent Supplemental Agreements.

G. The principal and Surety executing the Contract/Performance Bond shall be liable to the County in any civil action that might be instituted by the County or any officer of the County authorized in such cases, for triple any amount in money or property the County might lose, or be overcharged, or otherwise be defrauded of by any wrongful or criminal act of the Contractor, their agent or their employees.

Section 5. Contract Time and Liquidated Damages

A. Time is of the essence in the performance of the Work under this Agreement. The Commencement Date is established in the Notice to Proceed to be issued by the County, and the Contractor must begin the Work within the number of days specified by the Notice to Proceed. Written Notice to Proceed is contingent upon and will be done subsequent to the Contractor fully satisfying the County's stated insurance and Bond submittal requirements. No Work shall be performed at the Project Site prior to the Commencement Date. Any Work performed by the Contractor prior to the Commencement Date shall be at the sole risk of the Contractor. Final Acceptance of the Work shall be achieved within [The number of days specified in the Contractor's proposal in words and (number)] calendar days from the Commencement Date, and that time period shall be the Contract Time. The date of Final Acceptance of the Work (or designated portions thereof) is the date certified by the Director pursuant to Exhibit E, Article 5-11.

B. Prosecution and progress of the Work provisions are provided in Division 1, Section 8 of the Standard Specifications attached hereto as Exhibit E.

C. The County and the Contractor recognize that, since time is of the essence for this Agreement, the County will suffer financial loss if Final Acceptance of the Work is not achieved within the time specified above, as said time may be adjusted as provided for herein. Should the Contractor fail to achieve Final Acceptance of the Work within the time period noted above, the County shall be entitled to assess the amount set forth in

Article 8-10 of the Standard Specifications, as Liquidated Damages, but not as a penalty, for each calendar day thereafter until Final Acceptance is achieved. Final Acceptance of the Work shall be deemed to occur on the date the Director issues a written notice of Final Acceptance pursuant to the terms hereof. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted Liquidated Damages as a penalty, which the parties agree represents a fair and reasonable estimate of the County's actual damages at the time of contracting if the Contractor fails to achieve Final Acceptance of the Work in a timely manner.

D. When any period of time is referenced by days herein, it shall be computed to include the first day and last day of such period. All days shall mean calendar day and not business day.

E. Any agreed upon changes to the Contract Time must be accomplished by an approved, written Change Order in the form attached to this Agreement.

Section 6. Exhibits Incorporated.

The following documents are attached and expressly agreed as incorporated into and made a part of this Agreement:

- A. Legal Advertisement
- B. Invitation to Bid and all addenda, including the Project Plans
- C. Bid Form and Required Documents
- D. Form of Public Construction Performance and Payment Bond
- E. Standard Specifications
- F. Insurance Requirements, including Certificates of Insurance
- G. Form of Release and Affidavit
- H. Change Order Form
- I. Supplemental Specifications
- J. Special Provisions
- K. Technical Special Provisions
- L. FDOT and Lee County Design Standards
- M. Developmental Specifications
- N. Contractor's Background Screening Affidavit
- O. Other relevant forms

Section 7. Public Records.

A. In addition to other requirements provided herein, Contractor shall comply with public records laws embodied in Chapter 119, Florida Statutes, and specifically shall:

A.1. Keep and maintain public records required by the County in order to perform the Scope of Services identified herein.

A.2. Upon request from the County provide the County with any requested public

records or allow the requested records to be inspected or copied within a reasonable time by the County.

A.3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and thereafter if the Contractor does not transfer all records to the County.

A.4. Transfer, at no cost, to County all public records in possession of the Contractor upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the County, upon request from the County, in a format that is compatible with the information technology systems of the County. If the Contractor keeps and maintains public records upon the conclusion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records that would apply to the County.

B. If Contractor does not comply with a public records request, the County shall treat that omission as a breach of this Agreement and enforce the Contract provisions accordingly. Additionally, if the Contractor fails to provide records when requested, the Contractor may be subject to penalties under Section 119.10, Florida Statutes, and reasonable costs of enforcement, including attorney fees.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 239-533-2221, 2115 SECOND STREET, FORT MYERS, FL 33901, PRRCustodian@leegov.com; <http://www.leegov.com/publicrecords>.

Section 8. Audit.

A. Upon execution of the Contract, the County reserves the right to conduct an audit of the Contractor's records pertaining to the Project. The County or its representatives may conduct an audit, or audits, at any time prior to final payment, or thereafter pursuant to 5-12 of the Standard Specifications. The County may also require submittal of the records from either the Contractor or any subcontractor or material supplier. As the County deems necessary, records include all books of account, supporting documents, and papers pertaining to the cost of performance of the Work.

B. The Contractor must retain all records pertaining to the Contract for a period of not less than five (5) years from the date of the Director's final acceptance of the Project, unless a longer minimum period is otherwise specified. Upon request, make all such records available to the County or its representative(s). For the purpose of this section, records include but are not limited to all books of account, supporting documents,

and papers that the County deems necessary to ensure compliance with the provisions of the Contract Documents.

C. If the Contractor fails to comply with these requirements, the County may disqualify or suspend the Contractor from bidding on or working as a subcontractor on future Contracts.

D. The Contractor must ensure that the subcontractors provide access to their records pertaining to the project upon request by the County.

Section 9. Indemnification and Insurance.

A. Contractor agrees to save harmless, indemnify, and defend or, at the option of the County, pay the cost of defense, the County and its representative from any and all claims, losses, penalties, demands, judgments, and costs of suit, including attorneys' fees and paralegals' fees, for any expense, damage or liability incurred by any of them, whether for personal injury, property damage, direct or consequential damages, or economic loss, arising directly or indirectly on account of or in connection with the Work performed by Contractor under this Agreement or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by any one for whom Contractor is legally liable, of any materials, tools, machinery or other property of the County. This provision is intended to apply even if the injury or damage is caused in whole or in part by any act, omission or default of the County or Engineer of Record or their consultants, agents, officers and employees. The County and Contractor agree the first \$100.00 of the Contract Amount paid by the County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of the County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's execution of the Agreement. The Contractor's obligation under this provision shall not be limited in any way by the agreed upon Contract Amount as shown in this Contract or the Contractor's limit of, or lack of, sufficient insurance protection.

B. The Contractor guaranties the payment of all just claims for materials, supplies, tools, or labor and other just claims against him or any subcontractor, in connection with the Contract. The Department's final acceptance and payment does not release the Contractor's bond until all such claims are paid or released.

C. Contractor shall obtain and carry, at all times during its performance under the Contract Documents, insurance of the types and in the amounts set forth in the Insurance Requirements attached to this Agreement. All insurance policies shall be from responsible companies duly authorized to do business in the State of Florida and/or responsible risk retention group insurance companies which are registered with the State of Florida. Prior to execution of the Agreement, Contractor shall provide the County with properly executed Certificates of Insurance to evidence Contractor's compliance with the insurance requirements of the Contract Documents. Said Certificates of Insurance shall be on forms approved by the County. The Certificates of Insurance shall be personally,

manually signed by the authorized representatives of the insurance company/companies shown on the Certificates of Insurance, with proof that they are authorized representatives thereof. In addition, certified, true and exact copies of all insurance policies required hereunder shall be provided to the County, on a timely basis, when requested by the County.

D. The Certificates of Insurance and required insurance policies shall contain provisions that thirty (30) calendar days prior written notice by registered or certified mail shall be given to the County of any cancellation, intent not to renew, or reduction in the policies or coverages, except in the application of the aggregate limits provisions. In the event of a reduction in the aggregate limit of any policy, Contractor shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy.

E. To the extent multiple insurance coverage and/or County's self-insured retention may apply, any and all insurance coverage purchased by Contractor and its Subcontractors identifying the County as an additional named insured shall be primary. The acceptance by the County of any Certificate of Insurance does not constitute approval or agreement by the County that the insurance requirements have been satisfied or that the insurance policy shown on the Certificate of Insurance is in compliance with the requirements of the Contract Documents. No Work shall commence at the Project Site unless and until the required Certificates of Insurance are received by the County.

F. The Contractor will be fully responsible for all acts and omissions of his Subcontractors and of persons directly or indirectly employed by them and of persons for whose acts they may be liable to the same extent that they are employed by him. Nothing in the Contract Documents shall create any contractual relationship between any Subcontractor and the County. The County may, upon request, furnish to any Subcontractor, to the extent practicable, evidence of amounts paid to the Contractor on account of specific Work done.

G. Contractor shall require each of its Subcontractors to procure and maintain, until the completion of the Subcontractor's work, insurance of the types and to the limits specified in the Insurance Requirements attached to this Agreement, unless such insurance requirements for the Subcontractor are expressly waived in writing by the County. All liability insurance policies, other than professional liability, workers' compensation, employer's liability and business auto liability policies, obtained by Contractor to meet the requirements of the Contract Documents shall name the County and Engineer of Record as additional insureds. If any insurance provided pursuant to the Contract Documents expires prior to the completion of the Work, renewal Certificates of Insurance and, if requested by the County, certified, true copies of the renewal policies, shall be furnished by Contractor within thirty (30) calendar days prior to the date of expiration.

H. Should at any time the Contractor not maintain the insurance coverages required herein, the County may terminate the Agreement or at its sole discretion shall be authorized to purchase such coverages and charge the Contractor for such coverages

purchased. The County shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company or companies used. The decision of the County to purchase such insurance coverages shall in no way be construed to be a waiver of any of its rights under the Contract Documents.

I. Contractor shall submit to Engineer of Record a copy of all accident reports arising out of any injuries to its employees or those of any firm or individual to whom it may have subcontracted a portion of the Work, or any personal injuries or property damages arising or alleged to have arisen on account of any Work by Contractor under the Contract Documents.

Section 10. Compliance with Laws and Regulations

A. Contractor agrees to comply, at its own expense, with all federal, state, and local Laws and Regulations, including federal, state and local laws, codes, statutes, ordinances, rules, regulations and requirements applicable to the Project, including but not limited to those dealing with taxation, workers' compensation, equal employment and safety. If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify the County and Engineer of Record in writing.

B. Legal Requirements and provisions concerning Laws and Regulations to be observed are provided in Division 1, Section 7 of the Standard Specifications attached hereto as Exhibit E.

Section 11. Warranty

A. Contractor shall obtain and assign to the County all express warranties given to Contractor or any Subcontractors by any materialmen supplying materials, equipment or fixtures to be incorporated into the Project.

B. Contractor warrants to the County that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to the County that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, Suppliers or processors except as otherwise provided for in the Contract Documents. If, within one (1) year after Final Acceptance, any Work is found to be Defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from the County. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work which may be damaged as a result of such replacement or repair. These warranties are in addition to those express or implied warranties to which the County is entitled as a matter of law.

C. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an application for progress payment, whether incorporated in the Project or not, will be passed to the County prior to the next application for progress payment, free and clear of all liens, claims, security interest and encumbrances; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the Work at the site or furnishing materials and equipment for the Project subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

Section 12. Notices.

A. All notices required or made pursuant to this Agreement by the Contractor to the County shall be in writing and delivered by hand or by United States Postal Service, first class mail, postage pre-paid, return receipt requested, or by courier, addressed to the following:

Roger Desjarlais
Lee County Manager
P.O. Box 398
Fort Myers, FL 33902

With copies addressed to each of the following:

[County Project Manager Name], Project Manager, P.O. Box 398, Fort Myers, FL 33902

[County Procurement Director Name], Procurement Management Director, P.O. Box 398, Fort Myers, FL 33902

[County DOT Director Name], Department of Transportation Director, P.O. Box 398, Fort Myers, FL 33902

B. All notices required or made pursuant to this Agreement by the County to Contractor shall be made in writing and shall be delivered by hand or by United States Postal Service, first class mail, postage pre-paid, return receipt requested, or by courier, addressed to the following:

[Corporate Name of Contractor]

Attention: [Name of person with their title to whose attention the notice should be sent]

[Address (including city, state and zip)]

Telephone: [Telephone Number] Fax: [Fax Number]

C. Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this Section.

Section 13. Modification.

No modification or change to the Agreement shall be valid or binding upon the parties unless in writing and executed by the appropriate parties intended to be bound by it.

Section 14. Successors and Assigns.

Subject to other provisions hereof, the Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Agreement.

Section 15. No Waiver.

The failure of the County to enforce, at any time or for any period of time, any one or more of the provisions of the Agreement shall not be construed to be, and shall not be, a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

Section 16. Federal Requirements

A. In the event this Project is funded in whole or in part from any granting agency or source, the specific terms, regulations and requirements governing the disbursement of those funds are incorporated by reference and made a part of the Contract Documents.

Section 17. Entire Agreement.

Each of the parties hereto agrees and represents that the Agreement comprises the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, Work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by the Agreement.

Section 18. Severability.

Should any provision of the Agreement be determined by a court to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) indicated below.

WITNESS:

CONTRACTOR: [Contractor Name]

Signed By: _____

Signed By: _____

Print Name: _____

Print Name: _____

Title: _____

Date: _____

OWNER: LEE COUNTY

BOARD OF COUNTY COMMISSIONERS
OF LEE COUNTY, FLORIDA

BY: _____
CHAIR

DATE: _____

ATTEST:
CLERK OF THE CIRCUIT COURT
Linda Doggett, Clerk

BY: _____

APPROVED AS TO FORM FOR THE
RELIANCE OF LEE COUNTY ONLY:

BY: _____
OFFICE OF THE COUNTY ATTORNEY

EXHIBIT A
LEGAL ADVERTISEMENT

EXHIBIT B
INVITATION TO BID

[Include the entire bid package with all addenda, plans and drawings. Include the solicitation package **up to the label page**. Do not include the Draft Construction Agreement title page.]

EXHIBIT C
BID FORM AND REQUIRED DOCUMENTS

[Include the Contractor's bid submission: the bid form and all the documents required by the solicitation.]

EXHIBIT D
PUBLIC CONSTRUCTION PERFORMANCE AND PAYMENT BOND

By this bond, we [Name of Contractor], as **Principal**, and [Name of Surety], as **Surety**, are bound to **Lee County Board of County Commissioners**, a political subdivision of the State of Florida, herein called **Owner**, in the sum of **[Total Contract Price]**, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND IS that is that if Principal:

1. Performs this contract dated _____, 20____, between Principal and Owner for construction of improvements known as **[Name of Project]** located at **[Street Address or Legal Description]**, under Lee County Solicitation No. [Solicitation number], the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05 (1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes do not affect Surety's obligation under this bond.

	OWNER	PRINCIPAL	SURETY
NAME	Lee County Board of County Commissioners	[Name of Contractor]	[Name of Surety]
ADDRESS	2115 Second St. Fort Myers, FL 33901	[Principal Business Address of Contractor]	[Principal Business Address of Surety]
PHONE NUMBER	239-533-2221	[Principal Business Phone of Contractor]	[Principal Business Phone of Surety]

[The remainder of this page intentionally left blank.]

BOND NO. [Surety to enter bond #]

[Name of Contractor]

DATED THIS _____ DAY

OF _____, 2 _____

By: _____
[Printed Name and Title of Signer]

STATE OF _____
COUNTY OF _____

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this ____ day of _____, _____, by [name of person acknowledging].

(NOTARY SEAL)

Signature of Notary Public

[Name of Notary Typed, Printed, or Stamped]

Personally Known _____ OR Produced Identification _____
Type of Identification Produced:

[Name of Surety]

DATED THIS _____ DAY

OF _____, 2 _____

By: _____
[Printed Name] as Attorney in Fact

Address: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this ____ day of _____, _____, by [name of person acknowledging].

(NOTARY SEAL)

Signature of Notary Public

[Name of Notary Typed, Printed, or Stamped]

Personally Known _____ OR Produced Identification _____
Type of Identification Produced:

EXHIBIT E
STANDARD SPECIFICATIONS

The Standard Specifications comprise Divisions I, II and III as noted below:

1. Division I General Requirements and Covenants, Sections 1-9 as included herein.
2. Division II-Construction Details and Division III-Materials refer to the **FY 2023-24** edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, available at the following link:

<http://www.fdot.gov/programmanagement/Implemented/SpecBooks/>

DIVISION I

General Requirements and Covenants

SECTION 1 DEFINITIONS AND TERMS

1-1 General.

These Specifications are written to the bidder, prior to award of the Contract, and to the Contractor. Within Divisions I and II of the specifications, sentences that direct the Contractor to perform work are written in the active voice-imperative mood. These directions to the Contractor are written as commands. In the imperative mood, the subject “the bidder” or “the Contractor” is understood.

All other requirements to be performed by others, with the exception of the Method of Measurement and the Basis of Payment Articles, have been written in the active voice, but not in the imperative mood. Sentences written in the active voice identify the party responsible for performing the action. For example, “The Engineer will determine the density of the compacted material.” Certain requirements of the Contractor may also be written in the active voice, rather than active voice-imperative mood.

Division III of the Specifications (Materials) is written in the passive voice writing style.

1-2 Abbreviations.

The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration

FSS	Federal Specifications and Standards
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISO	International Organization for Standards
MASH	AASHTO Manual for Assessing Safety Hardware
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
OSHA	Occupational Safety and Health Administration
SAE	Society of Automotive Engineers
SI	International System of Units
SSPC	Society of Protective Coatings
UL	Underwriters' Laboratories

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the particular authority or organization shown.

Use standards, specifications, test methods, or other codes as specified in the current edition at the time of the bid opening.

1-3 Definitions.

The following terms, when used in the Contract Documents, have the meaning described.

Advertisement.

The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished, usually issued as “Notice to Contractors,” or “Notice to Bidders.”

Article.

The numbered prime subdivision of a Section of these Specifications.

Bidder.

An individual, firm, or corporation submitting a proposal for the proposed work.

Bridge.

A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.

Calendar day.

Every day shown on the calendar, ending and beginning at midnight.

Contract.

The term “Contract” means the entire and integrated agreement between the parties thereunder and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract Documents form the Contract between the Department and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

Contract Bond.

The security furnished by the Contractor and the surety as a guaranty that the Contractor shall fulfill the terms of the Contract and pay all legal debts pertaining to the construction of the project.

Contract Claim (Claim).

A written demand submitted to the Department by the Contractor in compliance with 5-12.3 seeking additional monetary compensation, time, or other adjustments to the Contract, the entitlement or impact of which is disputed by the Department.

Contract Documents.

The term “Contract Documents” includes: Advertisement for Proposal, Proposal, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Noncollusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Specifications, Plans (including revisions thereto issued during construction), Estimated Quantities Report, Standard Plans, Addenda, or other information mailed or otherwise transmitted to the prospective bidders prior to the receipt of bids, work orders and supplemental agreements, all of which are to be treated as one instrument whether or not set forth at length in the form of contract.

Note: As used in Sections 2 and 3 only, Contract Documents do not include work orders, and supplementary agreements. As used in Section 2 only, Contract Documents also do not include Resolution of Award of Contract, Executed Form of Contract, and Performance and Payment Bond.

Contract Letting.

The date that the Department opened the bid proposals.

Contract Time.

The number of calendar days allowed for completion of the Contract work, including authorized time extensions.

Contractor.

The individual, firm, joint venture, or company contracting with the Department to perform the work.

Contractor’s Engineer of Record.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign or Cost Savings Initiative Proposal, or for repair

designs and details of the permanent work. The Contractor's Engineer of Record may also serve as the Specialty Engineer.

The Contractor's Engineer of Record must be an employee of a pre-qualified firm. The firm shall be pre-qualified in accordance with the Rules of the Department of Transportation, Chapter 14-75. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate to being an employee of a pre-qualified firm, the Contractor's Engineer of Record may be a Department-approved Specialty Engineer. For items of the permanent work declared by the State Construction Office to be "major" or "structural", the work performed by a Department-approved Specialty Engineer must be checked by another Department-approved Specialty Engineer. An individual Engineer may become a Department-approved Specialty Engineer if the individual meets the Professional Engineer experience requirements set forth within the individual work groups in Chapter 14-75, Rules of the Department of Transportation, Florida Administrative Code. Department-approved Specialty Engineers are listed on the State Construction Website. Department-approved Specialty Engineers will not be authorized to perform redesigns or Cost Savings Initiative Proposal designs of items fully detailed in the Plans.

Controlling Work Items.

The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

Culverts.

Any structure not classified as a bridge that provides an opening under the roadway.

Delay.

Any unanticipated event, action, force or factor which extends the Contractor's time of performance of any controlling work item under the Contract. The term "delay" is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Contractor, or the Contractor's subcontractors, materialmen, suppliers or other agents. This term does not include "extra work".

Department.

State of Florida Department of Transportation.

Developmental Specification.

See definition for Specifications.

Engineer.

The Director, Office of Construction, acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.

Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where "acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established,

given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory,” it shall be understood as if the expression were followed by the words “by the Engineer,” “to the Engineer,” or “of the Engineer.”

Engineer of Record.

The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the preparation of the Plans and Specifications. The Engineer of Record may be Departmental in-house staff or a consultant retained by the Department.

The Contractor shall not employ the Engineer of Record as the Contractor’s Engineer of Record or as a Specialty Engineer.

Equipment.

The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.

Estimated Quantities Report.

The Estimated Quantities Report contains pay item and quantity information for the project. When the Plans do not adequately describe quantity related information, refer to the Estimated Quantities Report.

Extra Work.

Any “work” which is required by the Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a “delay”.

Federal, State, and Local Rules and Regulations.

The term “Federal, State and Local Rules and Regulations” includes: any and all Federal, State, and Local laws, bylaws, ordinances, rules, regulations, orders, permits, or decrees including environmental laws, rules, regulations, and permits.

Highway, Street, or Road.

A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Holidays.

Days designated by the State Legislature or Cabinet as holidays, which include, but are not limited to, New Year’s Day, Martin Luther King’s Birthday, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day and the following Friday, and Christmas Day.

Inspector.

An authorized representative of the Engineer, assigned to make official inspections of the materials furnished and of the work performed by the Contractor.

Laboratory.

The official testing laboratory used by the Department.

Major Item of Work.

Any item of work having an original Contract value in excess of 5% of the original Contract amount.

Materials.

Any substances to be incorporated in the work under the Contract.

Median.

The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

Plans.

The plans sheets and digital models (2D and 3D) provided as contract documents, including reproductions thereof, showing the location, character, dimensions, and details of the work.

Proposal (Bid, Bid Proposal).

The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

Proposal Form.

The official form or the electronically generated bid item sheets on which the Department requires formal bids to be prepared and submitted for the work.

Proposal Guaranty.

The security furnished by the bidder as guaranty that the bidder will enter into the Contract for the work if the Department accepts the proposal.

Request for Correction.

A document initiated by the Contractor proposing a method for correction of work that is not in compliance with the Contract Documents. The Request for Correction is submitted to the Engineer for review and disposition.

Request for Information.

A document initiated by the Contractor that is submitted to the Engineer for interpretation of a Contract Document provision, the meaning of which is not clear to the Contractor. The Request for Information is submitted to the Engineer for review and disposition.

Request for Modification.

A document initiated by the Contractor requesting to modify the Contract Documents, that is submitted to the Engineer for review and disposition.

Right-of-Way.

The land that the Department has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the Department.

Roadbed.

The portion of the roadway occupied by the subgrade and shoulders.

Roadway.

The portion of a highway within the limits of construction.

Secretary.

Secretary of Transportation, State of Florida Department of Transportation, acting directly or through an assistant or other representative authorized by him; the chief officer of the Department of Transportation.

Section.

A numbered prime division of these Specifications.

Special Event.

Any event, including but not limited to, a festival, fair, run or race, motorcade, parade, civic activity, cultural activity, charity or fund drive, sporting event, or similar activity designated in the Contract Documents.

Special Provisions.

See definition for Specifications.

Specialty Engineer.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the Plans and required to be furnished by the Contractor. The Specialty Engineer may also provide designs and details, repair designs and details, or perform Engineering Analyses for items of the permanent work declared by the State Construction Office to be “minor” or “non-structural”.

For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

1. Registration as a Professional Engineer in the State of Florida.
2. The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

Specifications.

The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

Standard Specifications: “Standard Specifications for Road and Bridge Construction” an electronic book, applicable to all Department Contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.

Supplemental Specifications: Approved additions and revisions to the Standard Specifications, applicable to all Department Contracts.

Special Provisions: Specific clauses adopted by the Department that add to or revise the Standard Specifications or supplemental specifications, setting forth conditions varying from or additional to the Standard Specifications applicable to a specific project.

Technical Special Provisions: Specifications, of a technical nature, prepared, signed, and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.

Developmental Specification: A specification developed around a new process, procedure, or material.

Standard Plans.

“Standard Plans for Road and Bridge Construction”, an electronic book describing and detailing aspects of the Work. Where the term Design Standards appears in the Contract Documents, it will be synonymous with Standard Plans.

Standard Specifications.

See definition for Specifications.

State.

State of Florida.

Subarticle.

A headed and numbered subdivision of an Article of a Section of these Specifications.

Subgrade.

The portion of the roadbed immediately below the base course or pavement, including below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the Plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the Plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter.

Substructure.

All of that part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.

Superintendent.

The Contractor’s authorized representative in responsible charge of the work.

Superstructure.

The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.

Supplemental Agreement.

A written agreement between the Contractor and the Department, and signed by the surety, modifying the Contract within the limitations set forth in these Specifications.

Supplemental Specifications.

See definition for Specifications.

Surety.

The corporate body that is bound by the Contract Bond with and for the Contractor and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.

Technical Special Provisions.

See definition for Specifications.

Traveled Way.

The portion of the roadway for the movement of vehicles, exclusive of shoulders and bicycle lanes.

Unilateral Payment.

A payment of money made to the Contractor by the Department pursuant to Section 337.11(12), Florida Statutes (2009), for sums the Department determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against the Department for payment of any additional sums the Contractor claims are due for the work.

Work.

All labor, materials and incidentals required to execute and complete the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.

Work Order.

A written agreement between the Contractor and the Department modifying the Contract within the limitations set forth in these Specifications. Funds for this agreement are drawn against the Initial Contingency Pay Item or a Contingency Supplemental Agreement.

Working Day.

Any calendar day on which the Contractor works or is expected to work in accordance with the approved work progress schedule.

SECTION 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 Reserved

2-2 Reserved

2-3 Interpretation of Estimated Quantities.

2-3.1 Lump Sum Contracts: The Contractor is responsible for the determination of the quantities for those items constructed within the authorized plan limits or dimensions.

The County does not assume any responsibility for any incidental information in bid documents that may be construed as a quantity of work and/or materials.

2-3.2 Contracts other than Lump Sum: For those items constructed within authorized plan limits or dimensions, use the quantities shown in the Plans and in the Proposal Form as the basis of the bid. The County will also use these quantities for final payment as limited by the provisions for the individual items. For those items having variable final pay quantities that are dependent on actual field conditions, use and measurement, the quantities shown in the Plans and in the Proposal Form are approximate and provide only a basis for calculating the bid upon which the County will award the Contract. Where items are listed for payment as lump sum units and the Plans show estimates of component quantities, the County is responsible for the accuracy of those quantities limited to the provisions of 9-3.3. Where items are listed for payment as lump sum units and the Plans do not show estimates of component quantities, the Contractor is solely responsible for their own estimates of such quantities.

The County may increase, decrease, or omit the estimated quantities of work to be done or materials to be furnished.

2-4 Examination of Plans, Specifications, Special Provisions and Site of Work.

The Contractor is responsible for examining the Contract Documents and the site of the proposed Work carefully before submitting a Proposal for the Work contemplated. Contractor shall investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of all Contract Documents.

The County does not guarantee the details pertaining to borings, as shown in the Contract Documents, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring and pavement core data, where available, and make their own interpretation of the subsoil investigations and other preliminary data and shall base their bid solely on their own opinion of the conditions likely to be encountered.

The Contractor's submission of a Proposal is prima facie evidence that the Contractor has made an examination as described in this Article.

2-5 Reserved

2-6 Reserved

2-7 Reserved

2-8 Reserved

2-9 Reserved

2-10 Reserved

2-11 Reserved

2-12 Material, Samples and Statement.

The County may require that the Contractor furnish a statement of the origin, composition, and manufacture of any and all materials to be used in the construction of the work, together with samples that may be subjected to the tests provided for in these Specifications to determine the materials' quality and fitness for the work.

SECTION 3

RESERVED

SECTION 4 SCOPE OF THE WORK

4-1 Intent of Contract.

The intent of the Contract is to provide for the construction and completion in every detail of the Work described in the Contract. Furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the Contract Documents.

4-2 Work not covered by Standard Specifications.

Proposed construction and any contractual requirements not covered by these Standard Specifications may be covered by Contract Plan notes or by Supplemental Specifications or Special Provisions for the Contract, and all requirements of such Supplemental Specifications or Special Provisions shall be considered as a part of these Specifications.

4-3 Alteration of Plans or of Character of Work.

4-3.1 General: The Director reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Director. Such increases, decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. Minor increases, decreases or alterations that do not change the scope of the Project, the Project cost, or the Contract Time may be initially authorized in a Field Directive Change Order. The Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Contract. All Field Directive Change Orders shall be approved as a Supplemental Agreement pursuant to 4-3.4 prior to Project close-out.

The term “significant change” applies only when:

1. The Director determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or

2. A major item of work, as defined in 1-3, is increased in excess of 125% or decreased below 75% of the original Contract quantity. The County will apply any price adjustment for an increase in quantity only to that portion in excess of 125% of the original Contract item quantity in accordance with 4-3.2 below. In the case of a decrease below 75% the County will only apply a price adjustment for the additional costs that are a direct result of the reduction in quantity.

In (1) above, the determination by the Director shall be conclusive. If the determination is challenged by the Contractor in any proceeding, the Contractor must establish by clear and convincing proof that the determination by the Director was without any reasonable basis.

4-3.2 Increase, Decrease or Alteration in the Work: The Director reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time

of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 5-12.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely submitted a notice of intent to claim or preliminary time extension request pursuant to 5-12.2 and 8-7.3.2, submit to the County a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data submitted is accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be the County's responsibility. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 5-12.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or the County, the County will review the content of any duly certified request for equitable adjustment or other dispute resolution proposal, with any further action or inaction by the County thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by the County.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any additional monetary compensation for any direct or indirect costs or profit for any such additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 5-12.6.2.1.

4-3.2.1 Allowable Costs for Extra Work: The Director may direct in writing that extra work be done and, at the Director's sole discretion, the Contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner:

1. Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes foremen actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager's position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own

more than 1% of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder.

Payment for burden shall be limited solely to the following:

Table 4-3.2.1	
Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation benefits	Actual
Retirement benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rate tables adjusted by Contractor's actual experience modification factor in effect at the time of the additional work or unforeseen work.
Per Diem	Actual but not to exceed State of Florida's rate
Insurance*	Actual
*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).	

At the Pre-construction conference, certify to the Director the following:

- a. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the contract,
- b. Actual Rate for items listed in Table 4-3.2.1,
- c. Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,
- d. Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Director as part of the cost proposal or seven calendar days in advance of performing such extra work.

2. Materials and Supplies: For materials accepted by the Director and used on the project, the Contractor will receive the actual cost of such materials incorporated into the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.

3. Equipment: For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the "Rental Rate Blue Book" for the actual time that such equipment is in operation on the work, and 50% of the "Rental Rate Blue Book" for the time the equipment is directed to standby and remain on the project site,

to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the "Rental Rate Blue Book for Construction Equipment" as published by EquipmentWatch division of Informa Business Media, Inc., using all instructions and adjustments contained therein and as modified below. On all projects, the Director will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the "Rental Rate Blue Book."

Allowable Equipment Rates will be established as set out below:

- a. Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%.
- b. Allowable Hourly Operating Cost = Hourly Operating Cost x 100%.
- c. Allowable Rate Per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost.
- d. Standby Rate = Allowable Hourly Equipment Rate x 50%.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the Director to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day equals eight hours. Standby payment will not be made on days that are not normally considered work days on the project.

The County will allow for the cost of transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, the County will pay for the time to perform this work at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

4. Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (a) or (b) below:

a. Solely a mark-up of 17.5% on the payments in (1) through (3), above.

1. Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen work at the original Contract bond rate paid by the Contractor. No compensation for bond premium will be allowed for additional or unforeseen work paid by the County via initial contingency pay item.

2. The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.

b. Solely the formula set forth below and only as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below.

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount

B = Original Contract Time

C = 8%

D = Average Overhead Per Day

Cumulative Calendar Days is defined as the combined total number of calendar days granted as time extensions due to either extra work, excluding overruns to existing contract items, that extend the duration of the project or delay of a controlling work item caused solely by the County, or the combined total number of calendar days for which a claim of entitlement to a time extension due to delay of a controlling work item caused solely by the County is otherwise ultimately determined to be in favor of the Contractor.

No compensation, whatsoever, will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the County is, or the total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the County is otherwise ultimately determined in favor of the Contractor to be, equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item caused solely by the County, that when combined together are equal to or less than ten calendar days and regardless of whether monetary compensation is otherwise provided for hereunder for one or more calendar days of time extension entitlement for each calendar day exceeding ten calendar days. All calculations under this provision shall exclude weather days, Holidays, and Special Events.

Further, for (a) or (b) above, in the event there are concurrent delays to one or more controlling work items, one or more being caused by the County and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the County but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay.

4-3.2.2 Subcontracted Work: Compensation for the additional or unforeseen work performed by a subcontractor shall be limited solely to that provided for in 4-3.2.1 (1), (2), (3) and (4)(a). In addition, the Contractor compensation is expressly limited to the greater of the total provided in either 4-3.2.1(4)(a) or (4)(b), except that the Average Overhead Per-Day calculation is as follows:

$$D_s = \frac{A_s \times C}{B}$$

Where A_s = Original Contract Amount minus Original Subcontract amounts(s)*

B = Original Contract Time

C = 8%

D_s = Average Overhead Per-Day

* deduct Original Subcontract Amount(s) of subcontractor(s) performing the work

The subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to the County of clear and convincing proof that the subcontractor has actually submitted and paid for separate bond premiums for such additional or unforeseen work in such amount and that the subcontractor was required by the Contractor to acquire a bond.

The Contractor shall require the subcontractor to submit a certification, in accordance with 4-3.2.1 (1), as part of the cost proposal and submit such to the Director. Such certification must be made by an officer or director of the subcontractor with authority to bind the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

4-3.3 No Waiver of Contract: Changes made by the Director will not be considered to waive any of the provisions of the Contract, nor may the Contractor make any claim for loss of anticipated profits because of the changes, or by reason of any variation between the approximate quantities and the quantities of work actually performed. All work shall be performed as directed by the Director and in accordance with the Contract Documents.

4-3.4 Conditions Requiring a Supplemental Agreement or Unilateral Payment: A Supplemental Agreement or Unilateral Payment will be used to clarify the Plans and Specifications of the Contract; to provide for unforeseen work, grade changes, or alterations in the Plans which could not reasonably have been contemplated or foreseen in the original Plans and Specifications; to change the limits of construction to meet field conditions; to provide a safe and functional connection to an existing pavement; to settle documented Contract claims; to make the project functionally operational in accordance with the intent of the original Contract and subsequent amendments thereto.

A Supplemental Agreement or Unilateral Payment may be used to expand the physical limits of the project only to the extent necessary to make the project functionally operational in accordance with the intent of the original Contract. The cost of any such agreement extending the physical limits of the project shall not exceed \$100,000 or 10% of the original Contract price, whichever is greater.

Except for Work included within a Field Directive Change Order, perform no work to be covered by a Supplemental Agreement or Unilateral Payment before written authorization is received from the Director. The Director's written authorization will set forth sufficient work information to allow the work to begin. The work activities, terms and conditions will be reduced to written Supplemental Agreement or Unilateral Payment form promptly thereafter. No payment will be made on a Supplemental Agreement or Unilateral Payment prior to the County's approval of the document.

4-3.5 Extra Work: Extra work authorized in writing by the Director will be paid in accordance with the formula in 4-3.2. Such payment will be the full extent of all monetary compensation entitlement due to the Contractor for such extra work. Any entitlement to a time extension due to extra work will be limited solely to that provided for in 4-3.2 for additional work.

4-3.6 Connections to Existing Pavement, Drives and Walks: Generally adhere to the limits of construction at the beginning and end of the project as detailed in the Plans. However, if the Director determines that it is necessary to extend the construction in order to make suitable connections to existing pavement, the Director will authorize such a change in writing.

For necessary connections to existing walks and drives that are not indicated in the Plans, the Director will submit direction regarding the proper connections in accordance with the Standard Plans.

4-3.7 Differing Site Conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract, or if unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the Contractor disturbs the conditions or performs the affected work.

Upon receipt of written notification of differing site conditions from the Contractor, the Director will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. The Director will notify the Contractor whether or not an adjustment of the Contract is warranted.

The Director will not allow a Contract adjustment for a differing site condition unless the Contractor has submitted the required written notice.

The Director will not allow a Contract adjustment under this clause for any effects caused to any other County or non-County projects on which the Contractor may be working.

4-3.8 Changes Affecting Utilities: The Contractor shall be responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by the Contractor, and the Contractor shall at the time of making the request for a change notify the County in writing of any such potential impacts to utilities.

County approval of a Contractor proposed change does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, Design Plans (including Traffic Control Plans) or other Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

4-3.9 Cost Savings Initiative Proposal:

4-3.9.1 Intent and Objective:

1. This Subarticle applies to any cost reduction proposal (hereinafter referred to as a Proposal) that the Contractor initiates and develops for the purpose of refining the Contract to increase cost effectiveness or significantly improve the quality of the end result. County Potential Proposals will be discussed as an agenda item at the pre-construction meeting. This Subarticle does not, however, apply to any such proposal unless the Contractor identifies it at the time of its submission to the County as a proposal submitted pursuant to this Subarticle.

2. The County will consider Proposals that would result in net savings to the County by providing a decrease in the cost of the Contract. Proposals must result in savings without impairing essential functions and characteristics such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features.

However, nothing herein prohibits the Contractor from submitting Proposals when the required functions and characteristics can be combined, reduced or eliminated because they are nonessential or excessive. The County will not recognize the Contractor's correction of plan errors that result in a cost reduction, as a Proposal.

3. The County shall have the right to reject, at its discretion, any Proposal submitted that proposes a change in the design of the pavement system or that would require additional right-of-way. Pending the County's execution of a formal supplemental agreement implementing an approved Proposal, the Contractor shall remain obligated to perform the work in accordance with the terms of the existing Contract. The County may grant time extensions to allow for the time required to develop and review a Proposal.

4. For potential Proposals not discussed at the Cost Savings Initiative Workshop, a mandatory concept meeting will be held for the Contractor and County to discuss the potential Proposal prior to development of the Proposal.

4-3.9.2 Subcontractors: The County encourages the Contractor to include the provisions of this Subarticle in Contracts with subcontractors and to encourage submission of Proposals from subcontractors. However, it is not mandatory to submit Proposals to the County or to accept or transmit subcontractor proposed Proposals to the County.

4-3.9.3 Data Requirements: As a minimum, submit the following information with each Proposal:

1. a description of the difference between the existing Contract requirement, including any time extension request, and the proposed change, and the comparative advantages and disadvantages.

2. separate detailed cost estimates for both the existing Contract requirement and the proposed change. Break down the cost estimates by pay item numbers indicating quantity increases or decreases and deleted pay items. Identify additional proposed work not covered by pay items within the Contract, by using pay item numbers in the Basis of Estimates Manual. In preparing the estimates, include overhead, profit, and bond within pay items in the Contract. Separate pay item(s) for the cost of overhead, profit, and bond will not be allowed.

3. an itemization of the changes, deletions or additions to Plan details, plan sheets, Standard Plans and Specifications that are required to implement the Proposal if the County adopts it. Submit preliminary plan drawings sufficient to describe the proposed changes.

4. engineering or other analysis in sufficient detail to identify and describe specific features of the Contract that must be changed if the County accepts the Proposal with a proposal as to how these changes can be accomplished and an assessment of their effect on other project elements. The County may require that engineering analyses be performed by a prequalified consultant in the applicable class of work. Support all design changes that result from the Proposal with drawings and computations signed and sealed by the Contractor's Engineer of Record. Written documentation or drawings will be submitted clearly delineating the responsibility of the Contractor's Engineer of Record.

5. the date by which the County must approve the Proposal to obtain the total estimated cost reduction during the remainder of the Contract, noting any effect on the Contract completion time or delivery schedule.

6. a revised project schedule that would be followed upon approval of the Proposal. This schedule would include submittal dates and review time for the County and Peer reviews.

4-3.9.4 Processing Procedures: Submit Proposals to the Director or his duly authorized representative. The County will process Proposals expeditiously; however, the County is not liable for any delay in acting upon a Proposal submitted pursuant to this Subarticle. The Contractor may withdraw, in whole or in part, a Proposal not accepted by the County within the period specified in the Proposal. The County is not liable for any Proposal development cost in the case where the County rejects or the Contractor withdraws a Proposal.

The Director is the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the County reserves the right to disregard the Contract bid prices if, in the judgment of the Director, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

Prior to approval, the Director may modify a Proposal, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the Proposal, the County will determine the Contractor's fair share upon the basis of the Proposal as modified and upon the final quantities. The County will compute the net savings by subtracting the revised total cost of all bid items affected by the Proposal from the total cost of the same bid items as represented in the original Contract.

Prior to approval of the Proposal that initiates the supplemental agreement, submit acceptable Contract-quality plan sheets revised to show all details consistent with the Proposal design.

4-3.9.5 Computations for Change in Contract Cost of Performance: If the Proposal is adopted, the Contractor's share of the net savings as defined hereinafter represents full compensation to the Contractor for the Proposal.

The County will not include its costs to process and implement a Proposal in the estimate. However, the County reserves the right, where it deems such action appropriate, to require the Contractor to pay the County's cost of investigating and implementing a Proposal as a condition of considering such proposal. When the County imposes such a condition, the Contractor shall accept this condition in writing, authorizing the County to deduct amounts payable to the County from any monies due or that may become due to the Contractor under the Contract.

4-3.9.6 Conditions of Acceptance for Major Design Modifications of Category 2 Bridges: A Proposal that proposes major design modifications of a category 2 bridge, as determined by the Director, shall have the following conditions of acceptance:

All bridge Plans relating to the Proposal shall undergo an independent peer review conducted by a single independent engineering firm referred to for the purposes of this article as the Independent Review Engineer who is not the originator of the Proposal design, and is pre-qualified by the County in accordance with Rule 14-75, Florida Administrative Code. The independent peer review is intended to be a comprehensive, thorough verification of the original work, giving assurance that the design is in compliance with all County requirements. The Independent Review Engineer's comments, along with the resolution of each comment, shall be submitted to the County. The Independent Review Engineer shall sign and seal the submittal cover letter stating that all comments have been adequately addressed and the design is in compliance with the County requirements. If there are any unresolved comments the Independent Review Engineer shall specifically list all unresolved issues in the signed and sealed cover letter.

The Contractor shall designate a primary engineer responsible for the Proposal design and as such will be designated as the Contractor's Engineer of Record for the

Proposal design. The County reserves the right to require the Contractor's Engineer of Record to assume responsibility for design of the entire structure.

New designs and independent peer reviews shall be in compliance with all applicable County, FHWA and AASHTO criteria requirements including bridge load ratings.

4-3.9.7 Sharing Arrangements: If the County approves a Proposal, the Contractor shall receive 50% of the net reduction in the cost of performance of the Contract as determined by the final negotiated agreement between the Contractor and the County. The net reduction will be determined by subtracting from the savings of the construction costs the reasonable documented engineering costs incurred by the contractor to design and develop a Proposal. The reasonable documented engineering costs will be paid by the County. Engineering costs will be based on the consultant's certified invoice and may include the costs of the Independent Review Engineer in 4-3.9.6. The total engineering costs to be subtracted from the savings to determine the net reduction will be limited to 25% of the construction savings and shall not include any markup by the Contractor or the costs for engineering services performed by the Contractor.

4-3.9.8 Notice of Intellectual Property Interests and County's Future Rights to a Proposal:

4-3.9.8.1 Notice of Intellectual Property Interests: The Contractor's Proposal submittal shall identify with specificity any and all forms of intellectual property rights that either the Contractor or any officer, shareholder, employee, consultant, or affiliate, of the Contractor, or any other entity who contributed in any measure to the substance of the Contractor's Proposal development, have or may have that are in whole or in part implicated in the Proposal. Such required intellectual property rights notice includes, but is not limited to, disclosure of any issued patents, copyrights, or licenses; pending patent, copyright or license applications; and any intellectual property rights that though not yet issued, applied for or intended to be pursued, could nevertheless otherwise be subsequently the subject of patent, copyright or license protection by the Contractor or others in the future. This notice requirement does not extend to intellectual property rights as to stand-alone or integral components of the Proposal that are already on FDOT's Approved Product List (APL) or Standard Plans, or are otherwise generally known in the industry as being subject to patent or copyright protection.

4-3.9.8.2 County's Future Rights to a Proposal: Notwithstanding 7-3 nor any other provision of the Standard Specifications, upon acceptance of a Proposal, the Contractor hereby grants to the County and its contractors (such grant being expressly limited solely to any and all existing or future County construction projects and any other County projects that are partially or wholly funded by or for the County) a royalty-free and perpetual license under all forms of intellectual property rights to manufacture, to use, to design, to construct, to disclose, to reproduce, to prepare and fully utilize derivative works, to distribute, display and publish, in whole or in part, and to permit others to do any of the above, and to otherwise in any manner and for any purpose whatsoever do anything reasonably necessary to fully utilize any and all aspects of such Proposal on any and all existing and future construction projects and any other County projects.

Contractor shall hold harmless, indemnify and defend the County and its contractors and others in privity therewith from and against any and all claims, liabilities, other obligations or losses, and reasonable expenses related thereto (including reasonable attorneys' fees), which are incurred or are suffered by any breach of the foregoing grants, and regardless of whether such intellectual property rights were or were not disclosed by the Contractor pursuant to 4-3.9.8.1, unless the County has by express written exception in the Proposal

acceptance process specifically released the Contractor from such obligation to hold harmless, indemnify and defend as to one or more disclosed intellectual property rights.

4-4 Unforeseeable Work.

When the County requires work that is not covered by a price in the Contract and such work does not constitute a “Significant Change” as defined in 4-3.1, and the County finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the County will make an adjustment to the Contract. The Director will determine the basis of payment for such an adjustment in a fair and equitable amount.

4-5 Rights in and Use of Materials Found on the Site of the Work.

4-5.1 Ownership and Disposal of Existing Materials: Take ownership and dispose of all materials that are not designated as the property of other parties, in both roadway and structures, found on the right-of-way, and all material in structures designated for removal. Such materials do not include earth or other excavated material required for the construction of the project. During construction, the Contractor may use materials from existing structures that are required to be removed and that are designated to remain the property of the County. Do not cut or otherwise damage such material during removal unless the Director gives permission to do so. Store material in an accessible location as the Director directs. The County is not responsible for the quality or quantity of any material salvaged.

4-5.2 Ornamental Trees and Shrubs: Take ownership of all ornamental trees or shrubs existing in the right-of-way that are required to be removed for the construction operations and which are not specifically designated in the Plans to be reset, or to be removed by others prior to the construction operations.

4-6 Final Cleaning Up of Right-of-Way.

Upon completion of the work, and before the County accepts the work and makes final payment, remove from the right-of-way and adjacent property all falsework, equipment, surplus and discarded materials, rubbish and temporary structures; restore in an acceptable manner all property, both public and private, that has been damaged during the prosecution of the work; and leave the waterways unobstructed and the roadway in a neat and presentable condition throughout the entire length of the work under Contract. Do not dispose of materials of any character, rubbish or equipment, on abutting property, with or without the consent of the property owners. The Director will allow the Contractor to temporarily store equipment, surplus materials, usable forms, etc., on a well-kept site owned or leased by the Contractor, adjacent to the project. However, do not place or store discarded equipment, materials, or rubbish on such a site.

Shape and dress areas adjacent to the project right-of-way that were used as plant sites, materials storage areas or equipment yards when they are no longer needed for such purposes. Restore these areas in accordance with 7-11.1 and 7-11.2. Grass these areas when the Director directs.

SECTION 5 CONTROL OF THE WORK

5-1 Plans and Working Drawings.

5-1.1 Contract Documents: Have available the Contract Documents on the worksite at all times.

5-1.2 County Plans: Plans consist of general drawings showing such details as are necessary to give a comprehensive idea of the construction contemplated. In general, roadway plans will show alignment, profile grades, typical sections and general plan view details. Cross sectional views maybe provided or created from provided surface models. In general, structure plans will show in detail all dimensions of the work contemplated. When the structure plans do not show the dimensions in detail, they will show general features and such details as are necessary to give a comprehensive idea of the structure.

Elevations and B.M. Datum shown are North American Vertical Datum 1988 (NAVD-1988), National Geodetic Vertical Datum of 1929 (NGVD-1929), or other datum as noted in the Plans.

5-1.3 Alterations in Plans: The County will issue, in writing, all authorized alterations affecting the requirements and information given on the approved Plans.

The existing surface is a combination of the following:

1. The natural ground or the original ground line,
2. The bottom of the existing pavement,
3. The bottom of existing features removed by clearing and grubbing,
4. The bottom of the existing base, if the base is to be removed,

The finished graded surface includes the completed grades of side slopes, unpaved shoulders, and the bottom of the base for flexible or rigid pavement.

5-1.4 Shop Drawings:

5-1.4.1. Definitions: In addition to the definitions below, also refer to Section 1, Definitions and Terms.

1. Bracing: Temporary structural member(s) placed between beams, girders, piles, precast columns, etc. to provide stability during construction activities.

2. Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures and construction operations spanning over or adjacent to functioning vehicular roadways, pedestrian walkways, railroads, navigable waterways and walls supporting fill sections or excavations immediately adjacent to functioning roadways. Construction Affecting Public Safety may also apply to the construction or demolition of a bridge with continuous beams or girders if traffic is being placed under one of the spans within the unit. It does not apply to those areas of the site outside the limits of normal public access. Adjacent as used above applies to any project or property where normal construction operations could impact functioning vehicular roadways, pedestrian walkways, railroads, and navigable waterways.

3. Contractor Originated Designs: Items which the Contract Documents require the Contractor to design, detail and incorporate into the permanent works.

4. Detailer: The steel detailer that prepares the steel shop drawings for the fabrication, geometry and fit-up for all steel members in accordance with the Plans.

5. Falsework: Any temporary construction work used to support the permanent structure until it becomes self-supporting. Falsework includes steel or timber beams, girders, columns, bracing, piles and foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring.

6. Formwork: Any structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Formwork may be comprised of common materials such as wood or metal sheets, battens, soldiers and walers, ties, proprietary forming systems such as

stay-in-place metal forms, and proprietary supporting bolts, hangers and brackets. Formwork may be either permanent formwork requiring a shop drawing submittal such as stay-in-place metal or concrete forms, or may be temporary formwork which requires certification by the Specialty Engineer for Construction Affecting Public Safety and for Major and Unusual Structures.

7. Major and Unusual Structures: Bridges of complex design. Generally, this includes the following types of structures:

- a. Bridges with an individual span longer than 300 feet.
- b. Structurally continuous superstructures with spans over 150 feet.
- c. Steel box and plate girder bridges.
- d. Concrete or steel straddle piers and straddle pier caps.
- e. Steel truss bridges including proprietary pedestrian steel truss spans not satisfying the Category 1 conditions of FDOT Design Manual 266.4.
- f. Concrete segmental, post-tensioned girder bridges and post-tensioned substructures.
- g. Cable stayed, extradosed or suspension bridges.
- h. Arch bridges.
- i. Tunnels.
- j. All movable bridges (including specifically structural, electrical and mechanical components).
- k. Rehabilitation, widening, lengthening or jacking of any of the above structures.

8. Permanent Works: All the permanent structures and parts thereof required of the completed Contract.

9. QA/QC Shop Drawing Check Points: The Engineer of Record is responsible for conducting a review of all shop drawings regardless of whether the shop drawing is originated by the Engineer of Record or by others. QA/QC Shop Drawing Check Prints shall consist of highlighting items that the EOR is able to verify based on the EOR's plans and design information on each sheet reviewed. Each sheet shall be initialed by the reviewer. QA/QC Shop Drawing Check Prints shall be submitted to the Department along with the stamped Shop Drawing.

10. Scaffolding: An elevated work platform used to support workers, materials and equipment, but not intended to support the structure.

11. Shop Drawings: A shop drawing is a drawing or set of drawings produced by the contractor, supplier, manufacturer, subcontractor, or fabricator for prefabricated components. Shop drawings also include all working drawings, erection plans, associated trade literature, material cut-sheets, calculations, schedules, erection manuals, geometry control manuals and other manuals and similar documents submitted by the Contractor to define some portion of the project work. The type of work includes both permanent and temporary works as appropriate to the project.

12. Shoring: A component of falsework such as horizontal, vertical or inclined support members. In this Section, this term is interchangeable with falsework.

13. Special Erection Equipment: Includes launching gantries, beam and winch equipment, form travelers, segment lifters, beam shifters, erection trusses, launching noses or similar items made purposely for construction of the structure. It does not apply to commonly available proprietary construction equipment such as cranes.

14. Temporary Works: Any temporary construction work necessary for the construction of the permanent works. This includes but is not limited to bracing, falsework, formwork, scaffolding, shoring, stability towers, strong-backs, counterweights, temporary earthworks, sheeting, cofferdams, and special erection equipment.

5-1.4.2 Shop Drawing Submittal and Review Requirements: See table below for shop drawing submittal and review requirements.

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Steel Fabrication Drawings		Originator			Reviewer
Steel Erection Plan			Originator		Reviewer
Geometry Control Manual				Originator	Reviewer
Segmental Erection Manual				Originator	Reviewer
Segmental Shop Drawings					Reviewer
Post-tensioning Mock-up Plan			Originator		Reviewer
Post-tensioning Systems ₁			Originator		Reviewer
Pretensioned Prestressed Concrete Products Containing FRP Bars or Strands Excluding Standard Piles and Sheet Piles			Originator		Reviewer
Temporary Works Affecting Public Safety ₂			Originator		Reviewer

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Demolition Plans of Bridges with Continuous Beams or Girders Where One Span Within the Unit is Over Traffic			Originator		Reviewer
Prefabricated Bridge Elements and System Connection Mock-Up Plans			Originator		Reviewer
Bridge Formwork Including SIP Forms			Originator		Reviewer
Construction Equipment Placed on Existing Bridges				Originator	Reviewer
Bridge components not fully detailed in the Plans, i.e. post-tensioning details, handrails, temporary operating systems for movable bridges etc.				Originator	Reviewer
Retaining Wall Systems			Originator		Reviewer

Table 5-1 Submittal and Review Requirements					
Shop Drawing for:	Originated by Specialty Engineer Not Signed and Sealed	Originated by Detailer Not Signed and Sealed	Originated by Specialty Engineer Signed and Sealed	Originated by Contractor's EOR Signed and Sealed	Requires Review, QA/QC Shop Drawing Check prints and disposition stamp by Design EOR
Precast Box Culverts			Originator		Reviewer
Non-standard structures and components for drainage, lighting, signalization and signing			Originator		Reviewer
Building structures			Originator ³		Reviewer ⁴
Non-standard crash cushions and other nonstructural items			Originator		Reviewer
Design and structural details furnished by the Contractor in compliance with the Contract				Originator	Reviewer
Material or Product Cut-Sheets	Originator				Reviewer
1. Include integration details of the post-tensioning system. 2. Does not include formwork complying with Standard Plans, Index 102-600 (concrete placement is not permitted directly over traffic). Also, does not include critical temporary walls that are fully detailed in the plans unless redesigned by the Contractor. Does not include specialized equipment if traffic is removed from under equipment while equipment is being loaded, launched, and while loads are being transported by equipment. 3. In lieu of a Specialty Engineer, originator may be a licensed Architect. 4. In lieu of the Design Engineer of Record, the reviewer may be the Design Architect of Record.					

5-1.4.3 Schedule of Submittals: Prepare and submit a schedule of submittals that identifies the work for which shop drawings apply. For each planned submittal, define the type, and approximate number of drawings or other documents that are included and the planned submittal date, considering the processing requirements herein. Submit the schedule of submittals to the CEI Consultant within 60 days of the start of the Contract, and prior to the submission of any shop drawings.

Coordinate subsequent submittals with construction schedules to allow sufficient time for review, resubmittal and approval prior to beginning fabrication as necessary.

5-1.4.4 Style, Numbering, and Material of Submittals:

5-1.4.4.1 Drawings: Submit all shop drawings that are necessary to complete the structure in compliance with the design shown in the Plans. Prepare all shop drawings using the same units of measure as those used in the Plans. Consecutively number each sheet in the submittal series, and indicate the total number in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12). Include on each sheet the following items as a minimum requirement: the complete Project Number, Financial Project Identification Number (if applicable), Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and the Contractor for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the project, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record. A re-submittal will be requested when any of the required information is not included.

Shop drawings shall be submitted in Portable Document Format (PDF) files, formatted on sheets 11 by 17 inches.

5-1.4.4.2 Other Documents: Submit PDF files of other documents such as trade literature, catalogue information, calculations, and manuals formatted on sheets no larger than 11 by 17 inches. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12 . . . 12 of 12).

Prepare all documents using the same units of measure as the Plans and include a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, and include the complete Project Number, Financial Project Identification Number (if applicable), a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record.

Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the complete Financial Project Identification Number and the initials of the person(s) responsible for preparing and checking the document.

Clearly label trade literature and catalogue information on the front cover with the title, Financial Project Identification Number, date and name of the firm and person(s) responsible for that document.

5-1.4.5 Submittal Paths:

5-1.4.5.1 General: Shop drawings are not required for items on the Approved Products List used as intended in the relevant Standard Plans and Standard Specifications. For non-prequalified items, details of the submittal path and protocol to be followed will be established by the CEI Consultant and communicated at the preconstruction conference.

Shop drawing review will be performed by the Engineer of Record for the project feature associated with each submittal and communicated through the CEI Consultant. Shop drawing submittals shall include other information such as catalog data, procedure manuals, fabrication/welding procedures, and maintenance and operating procedures when required by the work. Submit material certifications and material tests to the CEI Consultant. The Contractor is responsible for checking and verifying any necessary field dimensions required in the development of shop drawings.

5-1.4.5.2 Building Structures: Submit shop drawings, and all correspondence related to building structures to the CEI Consultant for review and approval.

5-1.4.5.3 Contractor-Originated Design: Submit shop drawings and applicable calculations to the CEI Consultant for review. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer or the Contractor's Engineer of Record. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.4 Temporary Works: For Construction Affecting Public Safety, submit to the CEI Consultant shop drawings and the applicable calculations for the design of special erection equipment, bracing, falsework, scaffolding, etc. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.5 Demolition Plans of Bridges with Continuous Beams or Girders when Traffic is Under Any of the Spans of the Unit During Demolition Activities: For demolition plans of bridges with continuous beams or girders when traffic is placed under any of the spans of the unit during demolition activities, the Specialty Engineer shall prepare signed and sealed demolition plans and applicable calculations including a step-by-step sequence of demolition, etc. Clearly denote any traffic restrictions for all demolition steps. Submit in accordance with the requirements of 5-1.4. 1 through 5-1.4. 3, as appropriate.

5-1.4.5.6 Falsework Founded on Shallow Foundations: When vertical displacement limits are provided in the Plans for falsework founded on shallow foundations such as spread footings and mats, submit to the CEI Consultant shop drawings and applicable calculations of the falsework system including subsurface conditions and settlement estimates. The shop drawings and applicable calculations must be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.5.7 Formwork and Scaffolding: The Contractor is solely responsible for the safe installation and use of all formwork and scaffolding. The County does not require any formwork or scaffolding submittals unless such work would be classified as Construction Affecting Public Safety. For formwork, scaffolding, or other temporary works affecting public safety; develop the required designs in accordance with the AASHTO Guide Design Specifications for Bridge Temporary Works, the AASHTO Construction Handbook for Bridge Temporary Works, and Chapter 11 of the Structures Design Guidelines (SDG) using wind loads specified in the SDG.

5-1.4.5.8 Beam, Girder and Column Temporary Bracing: The Contractor is solely responsible for ensuring stability of beams, girders and columns during all handling, storage, shipping and erection. Adequately brace beams, girders and columns to resist wind, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the products, considering actual beam geometry and support conditions during all stages of erection and deck construction. At a minimum, provide temporary bracing at each end of each beam or girder. Develop the required bracing designs in accordance with the AASHTO LRFD

Bridge Design Specifications (LRFD) and Chapter 11 of the SDG using wind loads specified in the SDG. For information not included in the SDG or LRFD, refer to the AASHTO Guide Design Specifications for Bridge Temporary Works and the AASHTO Construction Handbook for Bridge Temporary Works.

For Construction Affecting Public Safety, when temporary bracing requirements are shown in the Plans, submit plans and calculations signed and sealed by a Specialty Engineer for the design of temporary bracing members and connections based on the forces shown in the Plans. In addition, submit a written certification that construction loads do not exceed the assumed loads shown in the Plans.

For Construction Affecting Public Safety, when temporary bracing requirements are not shown in the Plans or an alternate temporary bracing system is proposed, submit plans and calculations signed and sealed by a Specialty Engineer including the stability analysis and design of temporary bracing members and connections.

5-1.4.5.9 Erection Plan, Geometry Control Manual and Erection

Manual: Submit, for the Director's review, an Erection Plan that meets the specific requirements of Sections 450, 452 and 460 and this section. Submit in writing for the Engineer's review, an Erection Manual and Geometry Control Manual that meets the specific requirements of Section 462 and this Section. For all Erection Plans and Erection Manuals refer to Standard Plans, Index-102- 600 for construction activities not permitted over traffic. For construction activities not covered in Index 102-600, clearly denote what additional construction steps are not allowed over traffic.

5-1.4.5.10 Other Miscellaneous Design and Structural Details

Furnished by the Contractor in Compliance with the Contract: The CEI Consultant shall review all shop drawings and the applicable calculations for miscellaneous design and structural details as required by the Contract. The shop drawings and applicable calculations will be signed and sealed by the Specialty Engineer. Submit in accordance with the requirements of 5-1.4.1 through 5-1.4.3, as appropriate.

5-1.4.5.10 Project Shop Drawing Package: Upon completion of the work, but prior to authorization of final payment, the Contractor shall furnish the Director one complete, indexed and cataloged PDF file containing all of the Contractors, Subcontractors, and manufacturers shop drawings and catalog data as finally checked and reviewed by the Director with all modifications accepted by the Director subsequent thereto, showing the work as actually completed.

5-1.4.6 Processing of Shop Drawings:

5-1.4.6.1 Contractor Responsibility for Accuracy and Coordination of

Shop Drawings: Coordinate, schedule, and control all submittals, with a regard for the required priority, including those of the various subcontractors, suppliers, and engineers, to provide for an orderly and balanced distribution of the work.

Coordinate, review, date, stamp, approve and sign all shop drawings prepared by the Contractor or agents (subcontractor, fabricator, supplier, etc.) prior to submitting them to the CEI Consultant. Submittal of the drawings confirms verification of the work requirements, units of measurement, field measurements, construction criteria, sequence of assembly and erection, access and clearances, catalog numbers, and other similar data. Indicate on each series of drawings the specification section and sheet or drawing number of the Contract Plans to which the submission applies. Indicate on the shop drawings all deviations from the

Contract drawings and itemize all deviations in the letter of transmittal. Likewise, whenever a submittal does not deviate from the Contract Plans, clearly state so in the submittal.

Schedule the submission of shop drawings to allow for a 45 calendar day review period for all submittals associated with a category 2 bridge; tolling components identified in the current FDOT General Tolling Requirements (GTR) Part 3; and the tolling-related signing, DMS and ITS infrastructure. Schedule the submission of shop drawings to allow for a 25 calendar day review period for all other items. The review period commences upon the CEI Consultant's receipt of the valid submittal or valid re-submittal and terminates upon the transmittal of the submittal back to the Contractor. A valid submittal includes all the minimum requirements outlined in 5-1.4.4.

Submit shop drawings to facilitate expeditious review. The Contractor is discouraged from transmitting voluminous submittals of shop drawings at one time. For submittals transmitted in this manner, allow for the additional review time that may result.

Only shop drawings distributed with the approval stamps are valid and all work that the Contractor performs in advance of approval will be at the Contractor's risk. Work affecting Public Safety may not be performed prior to approval of appropriate submittals and work may not proceed at the Contractor's risk.

5-1.4.6.2 Scope of Review by Engineer of Record: The Engineer of Record's review of the shop drawings is for conformity to the requirements of the Contract Documents and to the intent of the design. The Engineer of Record's review of shop drawings which include means, methods, techniques, sequences, and construction procedures are limited to the effects on the permanent works. The Engineer of Record's review of submittals which include means, methods, techniques, sequences, and construction procedures does not include an in-depth check for the ability to perform the work in a safe or efficient manner.

5-1.4.6.3 Special Review by Engineer of Shop Drawings for Construction Affecting Public Safety: The Engineer may request copies of shop drawings related to Construction Affecting Public Safety for review and comment. When shop drawings are requested do not proceed with construction of the permanent works until receiving the Engineer's written approval.

5-1.4.7 Other Requirements for Shop Drawings for Bridges:

5-1.4.7.1 Shop Drawings for Structural Steel and Miscellaneous Metals: Submit shop drawings for structural steel and miscellaneous metals. Shop drawings shall consist of shop and erection drawings, welding procedures, and other working plans, showing details, dimensions, sizes of material, and other information necessary for the complete fabrication and erection of the metal work.

5-1.4.7.2 Shop Drawings for Concrete Structures: Submit shop drawings for concrete components that are not cast-in-place and are not otherwise exempted from submittal requirements. Also, submit shop drawings for all details that are required for the effective execution of the concrete work and are not included in the Contract Documents such as: special erection equipment, masonry layout diagrams, and diagrams for bending reinforcing steel, in addition to any details required for concrete components for the permanent work.

5-1.4.7.3 Shop Drawings for Major and Unusual Structures: In addition to any other requirements, within 60 days from the Notice to Proceed, submit information to the Director outlining the integration of the Major and Unusual Structure into the overall approach to the project. Where applicable to the project, include, but do not limit this information to:

1. The overall construction program for the duration of the Contract. Clearly show the Milestone dates. (For example, the need to open a structure by a certain time for traffic operations.)

2. The overall construction sequence. The order in which individual structures are to be built, the sequence in which individual spans of girders or cantilevers are erected, and the sequence in which spans are to be made continuous, and the order that components are to be installed (such as mechanical and electrical devices in moveable bridges).

3. The general location of any physical obstacles to construction that might impose restraints or otherwise affect the construction, and an outline of how to deal with such obstacles while building the structure(s). (For example, obstacles might include road, rail and waterway clearances, temporary diversions, transmission lines, utilities, property, and the Contractor's own temporary works, such as haul roads, cofferdams, plant clearances and the like.)

4. The approximate location of any special lifting equipment in relation to the structure, including clearances required for the operation of the equipment. (For example, crane positions, operating radii and the like.)

5. The approximate location of any temporary falsework, and the conceptual outline of any special erection equipment. Provide the precise locations and details of attachments, fixing devices, loads, etc. in later detailed submittals.

6. An outline of the handling, transportation, and storage of fabricated components, such as girders or concrete segments. Provide the precise details in later detailed submittals.

7. Any other information pertinent to the proposed scheme or intended approach.

Clearly and concisely present the above information on as few drawings as possible in order to provide an overall, integrated summary of the intended approach to the project. The County will use these drawings for information, review planning, and to assess the Contractor's approach in relation to the intent of the original design. Submittal to and receipt by the Director does not constitute any County acceptance or approval of the proposals shown thereon. Include the details of such proposals on subsequent detailed shop drawing submittals. Submit timely revisions and re-submittals for all variations from these overall scheme proposals.

5-1.4.8 Cost of Shop Drawings: Include the cost of shop drawings submittal in the Contract prices for the work requiring the shop drawings. The County will not pay the Contractor additional compensation for such drawings.

5-1.5 Certifications:

5-1.5.1 Special Erection Equipment: Prior to its use, ensure that the Specialty Engineer personally inspects the special erection equipment and submits a written certification to the Director that the equipment has been fabricated in accordance with the submitted drawings and calculations. In addition, after assembly, ensure that the Specialty Engineer observes the equipment in use and submits a written certification to the Director that such equipment is being used as intended and in accordance with the submitted drawings and calculations. In each case, the Specialty Engineer must sign and seal the letter of certification.

5-1.5.2 Falsework and Shoring Requiring Shop Drawings: After its erection or installation but prior to the application of any superimposed load, ensure that a Specialty Engineer or a designee inspects the falsework and certifies to the Director in writing that the falsework has been constructed in accordance with the materials and details shown on the submitted drawings and calculations. The letter of certification must be signed and sealed by the Specialty Engineer.

Where so directed in the shop drawings, ensure all welds are performed by welders qualified under AWS D1.5 for the type of weld being performed.

5-1.5.3 Temporary Formwork: For Construction Affecting Public Safety and for Major and Unusual Structures, prior to the placement of any concrete, ensure that a Specialty Engineer or a designee inspects the formwork and submits a written certification to the Director that the formwork has been constructed to safely withstand the superimposed loads to which it will be subjected. The Specialty Engineer must sign and seal the letter of certification.

5-1.5.4 Erection: For Construction Affecting Public Safety, submit an erection plan signed and sealed by the Specialty Engineer to the Director at least four weeks prior to erection commencing. Include, as part of this submittal, signed and sealed calculations and details for any falsework, bracing or other connection supporting the structural elements shown in the erection plan. Unless otherwise specified in the Plans, erection plans are not required for simple span precast prestressed concrete girder bridges with spans of 170 feet or less.

At least two weeks prior to beginning erection, conduct a Pre-erection meeting to review details of the plan with the Specialty Engineer that signed and sealed the plan, and any Specialty Engineers that may inspect the work and the Director.

After erection of the elements, but prior to opening of the facility below the structure, ensure that a Specialty Engineer or a designee has inspected the erected member. Ensure that the Specialty Engineer has submitted a written certification to the Director that the structure has been erected in accordance with the signed and sealed erection plan.

For structures without temporary supports but with temporary girder bracing systems, perform, as a minimum, weekly inspections of the bracing until all the diaphragms and cross frames are in place. For structures with temporary supports, perform daily inspections until the temporary supports are no longer needed as indicated in the erection plans. Submit written documentation of the inspections to the Director within 24 hours of the inspection.

5-1.6 Request for Correction: For work that the Contractor constructs incorrectly or does not meet the requirements of the Contract Documents, the Contractor has the prerogative to submit an acceptance proposal to the Director for review and disposition. The acceptance proposal shall describe the error or defect and either describe remedial action for its correction or propose a method for its acceptance. In either case, the acceptance proposal shall address structural integrity, aesthetics, maintainability, and the effect on Contract Time. The County will judge any such proposal for its effect on these criteria and for its effect on Contract Administration.

When the Director judges that a proposal infringes on the structural integrity or maintainability of the structure, the Contractor's Engineer of Record will perform a technical assessment and submit it to the Director for approval. Do not take any corrective action without the Director's written approval.

Carry out all approved corrective construction measures at no expense to the County.

Notwithstanding any disposition of the compensation aspects of the defective work, the Director's decision on the technical merits of a proposal is final.

5-1.7 Request for Information: Submit Requests for Information in writing to the Director to request clarification where a provision, detail or drawing in the Contract Documents seems to have more than one meaning, have an unclear meaning, or have conflicts between Plans and Specifications. A Request for Information is not considered a Notice of Claim. Notices of Claim must be submitted in accordance with 5-12.2.

5-1.8 Request for Modification: Where the Director allows the Contractor to make modifications to the permanent works for the purposes of expediting the Contractor's chosen construction methods, the Contractor shall submit proposals to the Director for review and approval prior to modifying the works. Submit proposals for minor modifications under the shop drawing process. Indicate on all drawings the deviations from the Contract Documents and itemize all deviations in the letter of transmittal. Major modifications must be submitted as a Cost Savings Initiative Proposal.

Minor modifications are those items that, in the opinion of the Director, do not significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components.

The Director's decision on the delineation between a minor and a major modification and the disposition of a proposal is final.

5-2 Coordination of Contract Documents.

These Specifications, the Plans, Special Provisions, and all supplementary documents are integral parts of the Contract Documents; a requirement occurring in one is as binding as though occurring in all. All parts of the Contract Documents are complementary and describe and provide for a complete work. In addition to the work and materials specified in the Specifications as being included in any specific pay item, include in such pay items additional, incidental work, not specifically mentioned, when so shown in the Plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the work under such pay item and not stipulated as being covered under other pay items.

In cases of discrepancy, the governing order of the documents is as follows:

1. Special Provisions.
2. Technical Special Provisions.
3. Plans.
4. Standard Plans.
5. Developmental Specifications.
6. Supplemental Specifications.
7. Standard Specifications.

Computed dimensions govern over scaled dimensions.

5-3 Conformity of Work with Contract Documents.

Perform all work and furnish all materials in reasonably close conformity with the lines, grades, models, dimensions, and material requirements, including tolerances, as specified in the Contract Documents.

In the event that the Director finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, but that the Contractor has produced reasonably acceptable work, the Director will determine if the County will accept the work in place. In this event, the Director will document the basis of acceptance by Contract modification, which provides for an appropriate reduction in the Contract price for such work or materials included in the accepted work as deemed necessary to conform to the determination based on engineering judgment.

In the event that the Director finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, and that the Contractor has produced an inferior or unsatisfactory product, the Contractor shall remove and replace or otherwise correct the work or materials at no expense to the County.

For base and surface courses, the County will allow the finished grade to vary as much as 0.1 foot from the grade shown in the Plans, provided that the Contractor's work meets all templates and straightedge requirements and contains suitable transitions.

5-4 Errors or Omissions in Contract Documents.

Do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify the Director in writing of such discovery. The Director will then make such corrections and interpretations as necessary to reflect the actual spirit and intent of the Contract Documents.

5-5 Authority of the Director.

Perform all work to the satisfaction of the Director.

The Director will decide all questions, difficulties, and disputes, of whatever nature, that may arise relative to the interpretation of the Plans, construction, prosecution, and fulfillment of the Contract, and as to the character, quality, amount, and value of any work done, and materials furnished, under or by reason of the Contract.

5-6 Authority and Duties of Director's Assistants.

The Director may appoint such assistants and representatives as desired. These assistants and representatives are authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work and to the manufacture, preparation, or fabrication of the materials to be used. Such assistants and representatives are not authorized to revoke, alter, or waive any requirement of these Specifications. Rather, they are authorized to call to the attention of the Contractor any failure of the work or materials to meet the Contract Documents, and have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Director. The Director will immediately submit written notification to the Contractor of any such suspension of the work, stating in detail the reasons for the suspension. The presence of the inspector or other assistant in no way lessens the responsibility of the Contractor.

5-7 Engineering and Layout.

5-7.1 Control Points Furnished by the County: The Director will provide control points at various locations along the project alignment (Begin Project, End Project, PIs, PTs, etc.) and benchmarks along the line of the project to facilitate the proper layout of the work. Control points and benchmarks provided by the engineer, if any, will be indicated in the Plans. Preserve all control points and benchmarks that the County furnishes. Any points carelessly or willfully disturbed or destroyed shall be reset at the sole expense of the Contractor.

As an exception to the above, for projects where the Plans do not show a centerline or other survey control line for construction of the work (e.g., resurfacing, safety modifications, etc.) the Director may provide only points marking the beginning and ending of the project, and all exceptions.

Prior to commencing the work, the Contractor shall perform a quality control check of all horizontal and vertical control points provided by the County and carefully compare all lines depicted in the plans with existing lines and levels, and shall call any discrepancies to the attention of the Director for resolution. Upon resolution of any discrepancies, the Contractor shall submit a letter to the County accepting the control points and bench marks for use. In any event, the Contractor shall be responsible for the accuracy of the Work and shall make good any work

performed in error, at no cost to the County. All construction surveying and layout work to be provided herein shall be coordinated with and subject to the approval of the Director.

5-7.1.1 Third Party Survey Monumentation: The Contractor is responsible for the protection and preservation of any third party survey monumentation (National Geodetic Survey points, property corners, etc.) located within the project limits. Any points carelessly or willfully disturbed or destroyed shall be reset at the sole expense of the Contractor. Any third party survey monumentation designated by the Director to be removed and re-established will be paid for at the unit prices set forth in the Contract, or if no such item exists in accordance with Section 4-3.2.1.

5-7.2 Furnishing of Stake Materials: Furnish all stakes, templates, and other materials necessary for establishing and maintaining the lines and grades necessary for control and construction of the work.

5-7.3 Layout of Work: Utilizing the control points and bench marks furnished by the County and accepted by the Contractor in accordance with 5-7.1, establish all horizontal and vertical controls necessary to construct the work in conformity to the Contract Documents. Perform all calculations required, and set all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes, and other reference marks or points necessary to provide lines and grades for construction of all roadway, bridge, and miscellaneous items.

When performing utility construction as part of the project, establish all horizontal and vertical controls necessary to carry out such work.

5-7.4 Specific Staking Requirements: When performing new base construction as part of the project, set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work. If Automated Machine Guidance is utilized, set stakes as needed. If Automated Machine Guidance is not utilized, set stakes no greater than 50 feet on tangents and 25 feet on curves. Set grade stakes at locations that the Director directs to facilitate checking of subgrade, base, and pavement elevations in crossovers, intersections, and irregular shaped areas.

For bridge construction stakes and other control, set references at sufficiently frequent intervals to ensure construction of all components of a structure in accordance with the lines and grades shown in the Plans.

For projects where the Plans do not show a centerline or other survey control line for construction of the work (resurfacing, safety modifications, etc.), provide only such stakes as necessary for horizontal and vertical control of work items.

For resurfacing and resurfacing-widening type projects, establish horizontal controls adequate to ensure that the asphalt mix added matches with the existing pavement. In tangent sections, set horizontal control points at 100-foot intervals by an instrument survey. In curve sections, set horizontal control points at 25-foot intervals by locating and referencing the centerline of the existing pavement. Alternate intervals may be used on resurfacing projects with prior written approval of the Director.

Establish by an instrument survey, and mark on the surface of the finished pavement at 25-foot intervals, the points necessary for striping of the finished roadway. As an exception, for resurfacing and resurfacing/widening projects, establish these points in the same manner as used for horizontal control of paving operations. Mark the pavement with white paint. If performing striping, the Director may approve an alternate method for layout of striping provided that the Contractor achieves an alignment equal to or better than the alignment that would be achieved using an instrument survey.

For projects that include temporary or permanent striping of “no passing zones”, provide the location and length of these zones as shown in the Plans, except projects where the vertical or horizontal alignment is new or altered from preconstruction alignment. For projects that consist of new or altered vertical or horizontal alignment, the County will provide the location and length of the "no passing zones" during construction. For these projects, submit written notification to the Director not less than 21 calendar days prior to beginning striping.

For all projects, set a station identification stake at each right-of-way line at 100-foot intervals and at all locations where a change in right-of-way width occurs, or as otherwise approved by the Director. Mark each of these stakes with painted numerals, of a size readable from the roadway, corresponding to the project station at which it is located. As an exception to the above, for projects where Plans do not show right-of-way lines, set station identification stakes at locations and intervals appropriate to the type of work being done. For resurfacing and resurfacing/widening projects, set station identification stakes at 200-foot intervals, or as otherwise approved by the Director.

5-7.4.1 As-Built Drawings and Certified Surveys: The Contractor shall maintain one record copy of all specifications, plans, addenda, and shop drawings on site and in good order, annotated in red to depict all changes made during construction and exact location of underground or otherwise concealed components of the project, and any modifications to material types from that specified in the bid plans and specifications (“red line documents”). All subsurface improvements shall be as-built prior to backfilling. As-built red line plans shall be maintained on 11-inch by 17-inch prints and red line annotations shall be completed in a neat draftsman-like manner.

As-built red lines shall include both authorized and unauthorized changes to all project features, including but not limited to: horizontal pavement dimensions; finished pavement grades; finish dimensions, elevations, and alignment of all storm sewer, drainage structures, ponds, water main, sanitary sewer, force main, service lines, conduit, wiring, traffic loops, and signal interconnects; signal poles; light poles; and signs.

Demonstrating proper maintenance of as-built drawings shall be a precedent to each progress payment. The Contractor shall make available to Director, at any time requested, as-built information through the date of the request. If the Director determines the as-built information is inaccurate, inadequate, or untimely payment may be withheld until such time that the Contractor cures any noted deficiencies.

Upon completion of all work, but prior to authorization of final payment, the Contractor shall deliver to the Director one complete set as-built red line documents and certified surveys providing verification of all as-built dimensions and grades for review and approval. The certified survey shall include, but not be limited to:

1. Level Circuit: the survey shall include a final bench mark level circuit indicating the accuracy of vertical closure.
2. Control structure bench marks: the Contractor shall establish and document the location and elevation of bench marks on or within 100-feet of each control structure constructed or modified as part of the project. Each control structure bench mark elevation shall be clearly and permanently indicated on the bench mark.
3. Cross-sections: as-built finished cross-sections shall be performed at intervals not exceeding 100 feet, extending from right-of-way to right-of-way, but also including temporary or permanent easements

as may be applicable. Cross sections shall include all elevation break points, and shall include edge of pavement and centerlines for all pavements.

4. Discharge structures: structure identification number, type, locations (latitude and longitude), dimensions, and elevations of all, including weirs, bleeders, orifices, gates, pumps, pipes, and oil and grease skimmers.
5. Side bank and underdrain filters, or exfiltration trenches: locations, dimensions and elevations of all, including clean-outs, pipes, connections to control structures and points of discharge to receiving waters.
6. Storage areas for treatment and attenuation: storage area identification number, dimensions, elevations, contours, or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems.
7. System grading: dimensions, elevations, contours, and final grades or cross-sections to determine contributing drainage areas, flow directions, and conveyance of runoff to the system discharge points.
8. Conveyance: dimensions, elevations, contours, final grades or cross-sections of systems utilized to divert off-site runoff around or through the new system.
9. Water levels: existing water elevations and the date recorded.
10. South Florida Water Management District (SFWMD): as-built surveys shall conform to any additional requirements and special conditions listed in the SFWMD's Environmental Resource Permit and any applicable local permit(s).
11. Bridge clearances: for projects under the authority of a U.S. Coast Guard bridge permit, as-built clearances as described in the U.S. Coast Guard Owner's Certification of Bridge Completion. For bridges spanning roadways, provide a full as-built clearance envelope across the full width of the lower roadway(s).
12. Projects under the authority of a U.S. Army Corps of Engineers permit: as-built surveys shall satisfy all of the requirements and special conditions listed in the U.S. Army Corps of Engineers permit.

All as-built survey information shall be signed and sealed by a licensed Professional Surveyor and Mapper duly registered in the State of Florida. No direct payment will be made for the cost of preparing, maintaining, and furnishing as-built plans and surveys as specified in this Article, the costs thereof shall be included in other items of work.

5-7.5 Personnel, Equipment, and Record Requirements: Employ only competent personnel and use only suitable equipment in performing layout work. Do not engage the services of any person or persons in the employ of the County for performance of layout work. All construction surveying and layout work, including dimensions and elevations associated with as-builts, shall be completed under the responsible charge of a licensed Professional Surveyor and Mapper duly registered in the State of Florida.

Keep adequate field notes and records while performing as layout work. Make these field notes and records available for the Director's review as the work progresses, and submit to the Director at the time of completion of the project. The Director's inspection, checking, or acceptance of the Contractor's field notes or layout work does not relieve the Contractor of his responsibility to achieve the lines, grades, and dimensions shown in the Contract Documents.

Prior to final acceptance of the project, mark, in a permanent manner on the surface of the completed work, all horizontal control points originally furnished by the County.

5-7.6 Global Navigation Satellite Systems (GNSS) Work Plan: If used, submit a comprehensive written GNSS Work Plan to the Director for County review and acceptance at the preconstruction conference or at least 30 days before starting work using GNSS. Update the plan as necessary during construction and notify the County of all changes. The GNSS Work Plan shall describe how GNSS enabled Automated Machine Guidance technology will be integrated into other technologies employed on the project. At a minimum, the GNSS Work Plan will include the following:

1. Designate which portions of the Contract will be done using GNSS enabled Automated Machine Guidance and which portions will be constructed using conventional survey methodology.

2. Describe the manufacturer, model, and software version of the GNSS equipment.

3. Provide information on the qualifications of Contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for GNSS technology issues.

4. Describe how project control will be established. Include a list and map showing control points enveloping the site.

5. Describe site calibration procedures. Include a map of the control points used for site calibration and control points used to validate the site calibration. Describe the frequency of site calibration and how site calibration will be documented. At a minimum, verify the site calibration twice daily.

6. Describe the Contractor's quality control procedures for verifying mechanical calibration and maintenance of construction and guidance equipment. Include the frequency and type of verification performed to ensure the constructed grades conform to the Contract Documents.

Keep on site and provide upon request, a copy of the project's most up to date GNSS Work Plan at the project site.

5-7.7 Payment: Include the cost of performing layout work as described above in the Contract unit prices for the various items of work that require layout.

5-8 Contractor's Supervision.

5-8.1 Prosecution of Work: Give the work the constant attention necessary to ensure the scheduled progress, and cooperate fully with the Director and with other contractors at work in the vicinity.

5-8.2 Contractor's Superintendent: Maintain a competent superintendent at the site at all times while work is in progress to act as the Contractor's agent. Provide a superintendent who is a competent superintendent capable of properly interpreting the Contract Documents and is thoroughly experienced in the type of work being performed. Provide a superintendent with the full authority to receive instructions from the Director and to execute the orders or directions of

the Director, including promptly supplying any materials, tools, equipment, labor, and incidentals that may be required. Provide such superintendence regardless of the amount of work sublet.

Provide a superintendent who speaks and understands English, and maintain at least one other responsible person who speaks and understands English, on the project during all working hours.

5-8.3 Supervision for Emergencies: Provide a responsible person, who speaks and understands English, and who is available at or reasonably near the worksite on a 24-hour basis, seven days a week. Designate this person as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise. Submit the phone numbers and names of personnel designated to be contacted in cases of emergencies, along with a description of the project location, to the Florida Highway Patrol and all other local law enforcement agencies.

5-9 General Inspection Requirements.

5-9.1 Cooperation by Contractor: Do not perform work or furnish materials without obtaining inspection by the Director. Provide the Director with safe means of access to the work, so the Director can determine whether the work performed and materials used are in accordance with the requirements and intent of the Contract Documents. For bridge projects with construction operations accessible only by watercraft, provide safe passage and transport to facilitate the Engineer's inspection of the Work. If the Director so requests at any time before final acceptance of the work, remove or uncover such portions of the finished work as directed. After examination, restore the uncovered portions of the work to the standard required by the Contract Documents. If the Director determines that the work so exposed or examined is unacceptable, perform the uncovering or removal, and the replacing of the covering or making good of the parts removed, at no expense to the County. However, if the Director determines that the work thus exposed or examined is acceptable, the County will pay for the uncovering or removing, and the replacing of the covering or making good of the parts removed in accordance with Section 4-4.

5-9.2 Failure of Director to Reject Work During Construction: If, during or prior to construction operations, the Director fails to reject defective work or materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject in no way prevents the later rejection when such defect is discovered, or obligates the County to final acceptance. The County is not responsible for losses suffered due to any necessary removals or repairs of such defects.

5-9.3 Failure to Remove and Renew Defective Materials and Work: If the Contractor fails or refuses to remove and renew any defective materials used or work performed, or to make any necessary repairs in an acceptable manner and in accordance with the requirements of the Contract within the time indicated in writing, the Director has the authority to repair, remove, or renew the unacceptable or defective materials or work as necessary, all at the Contractor's expense. The County will obtain payment for any expense it incurs in making these repairs, removals, or renewals, that the Contractor fails or refuses to make, by deducting such expenses from any moneys due or which may become due the Contractor, or by charging such amounts against the Contract bond.

5-9.4 Inspection by Federal Government: When the United States Government or the State of Florida pays a portion of the cost of construction, its representatives may inspect the construction work as they deem necessary. However, such inspection will in no way make the Federal Government or the State of Florida a party to the Contract.

5-10 Final Inspection.

5-10.1 Maintenance until Acceptance: Maintain all Work until the Director has given final acceptance in accordance with 5-11.

5-10.2 Inspection for Acceptance: Upon submittal of written notification that all Contract Work, or all Contract Work on the portion of the Contract scheduled for acceptance, has been completed, the Director will make an inspection for acceptance. The inspection will be made within seven days of such notification. If the Director finds that all work has been satisfactorily completed, the County will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, the Director will detail the remedial work required to achieve acceptance. Immediately perform such remedial work. Subsequent inspections will be made on the remedial work until the Director accepts all Work.

Upon satisfactory completion of the Work, the County will submit written notice of acceptance, either partial or final, to the Contractor.

Until final acceptance in accordance with 5-11, replace or repair any damage to the accepted Work. Payment of such work will be as provided in 7-14.

5-10.3 Partial Acceptance: At the Director's sole discretion, the Director may accept any portion of the Work under the provisions of 5-10.2.

5-10.4 Conditional Acceptance: The Director will not make, or consider requests for conditional acceptance of a project.

5-11 Final Acceptance.

When, upon completion of the final construction inspection of the entire project, the Director determines that the Contractor has satisfactorily completed the work, the Director will submit written notice of final acceptance to the Contractor.

5-12 Claims by Contractor.

5-12.1 General: When the Contractor deems that extra compensation or a time extension is due beyond that agreed to by the Director, whether due to delay, additional work, altered work, differing site conditions, breach of Contract, or for any other cause, the Contractor shall follow the procedures set forth herein for preservation, presentation and resolution of the claim.

Submission of timely notice of intent to file a claim, preliminary time extension request, time extension request, and the certified written claim, together with full and complete claim documentation, are each a condition precedent to the Contractor bringing any circuit court, arbitration, or other formal claims resolution proceeding against the County for the items and for the sums or time set forth in the Contractor's certified written claim. The failure to provide such notice of intent, preliminary time extension request, time extension request, certified written claim and full and complete claim documentation within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for such claim.

5-12.2 Notice of Claim:

5-12.2.1 Claims For Extra Work: Where the Contractor deems that additional compensation or a time extension is due for work or materials not expressly provided for in the Contract or which is by written directive expressly ordered by the Director pursuant to 4-3, the Contractor shall submit written notification to the Director of the intention to make a claim for additional compensation before beginning the work on which the claim is based, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay and a request for Contract Time

extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. If such written notification is not submitted and the Director is not afforded the opportunity for keeping strict account of actual labor, material, equipment, and time, the Contractor waives the claim for additional compensation or a time extension. Such notice by the Contractor, and the fact that the Director has kept account of the labor, materials and equipment, and time, shall not in any way be construed as establishing the validity of the claim or method for computing any compensation or time extension for such claim. On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9. However, for any claim or part of a claim that pertains solely to final estimate quantities disputes the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9, as to such final estimate claim dispute issues, within 90 or 180 calendar days, respectively, of the Contractor's receipt of the County's final estimate.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the County will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten-calendar day notice shall constitute a waiver of the claim.

5-12.2.2 Claims For Delay: Where the Contractor deems that additional compensation or a time extension is due on account of delay, differing site conditions, breach of Contract, or any other cause other than for work or materials not expressly provided for in the Contract (Extra Work) or which is by written directive of the Director expressly ordered by the Director pursuant to 4-3, the Contractor shall submit a written notice of intent to the Director within ten days after commencement of a delay to a controlling work item expressly notifying the Director that the Contractor intends to seek additional compensation, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay to a controlling work item, as to such delay and providing a reasonably complete description as to the cause and nature of the delay and the possible impacts to the Contractor's work by such delay, and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete documentation as described in 5-12.3 and duly certified pursuant to 5-12.9.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the County will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten-calendar day notice shall constitute a waiver of the claim.

There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not to a controlling work item,

and then as to any such delay to a controlling work item entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 4-3 or 5-12, except that in the instance of delay to a non-controlling item of work the Contractor may be compensated for the direct costs of idle labor or equipment only, at the rates set forth in 4-3.2.1(1) and (3), and then only to the extent the Contractor could not reasonably mitigate such idleness.

If the Contractor provides the written notice of intent, the preliminary request for time extension, and the request for Contract Time extension in compliance with the aforementioned time and content requirements, the Contractor's claim for delay to a controlling work item will be evaluated as of the date of the elimination of the delay even if the Contractor's performance subsequently overcomes the delay. If the claim for delay has not been settled, the Contractor must also comply with 5-12.3 and 5-12.9 to preserve the claim.

5-12.3 Content of Written Claim: As a condition precedent to the Contractor being entitled to additional compensation or a time extension under the Contract, for any claim, the Contractor shall submit a certified written claim to the County which will include for each individual claim, at a minimum, the following information:

1. A detailed factual statement of the claim providing all necessary dates, locations, and items of work affected and included in each claim;

2. The date or dates on which actions resulting in the claim occurred or conditions resulting in the claim became evident;

3. Identification of all pertinent documents and the substance of any material oral communications relating to such claim and the name of the persons making such material oral communications;

4. Identification of the provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim, or alternatively, the provisions of the Contract which allegedly have been breached and the actions constituting such breach;

5. A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows:

- a. documented additional job site labor expenses;
- b. documented additional cost of materials and supplies;
- c. a list of additional equipment costs claimed, including each piece of equipment and the rental rate claimed for each;
- d. any other additional direct costs or damages and the documents in support thereof;

- e. any additional indirect costs or damages and all documentation in support thereof.

6. A detailed compilation of the specific dates and the exact number of calendar days sought for a time extension, the basis for entitlement to time for each day, all documentation of the delay, and a breakout of the number of days claimed for each identified event, circumstance or occurrence.

Further, the Contractor shall be prohibited from amending either the bases of entitlement or the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder, and any circuit court, arbitration, or other formal claims resolution proceeding shall be limited solely to the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder. This shall not, however, preclude a Contractor from withdrawing or reducing

any of the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder at any time.

5-12.4 Action on Claim: The Director will respond in writing on projects with an original Contract amount of \$3,000,000 or less within 90 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3, and on projects with an original Contract amount greater than \$3,000,000 within 120 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3. Failure by the Director to respond to a claim in writing within 90 or 120 days, respectively, after receipt of a complete claim submitted by the Contractor in compliance with 5-12.3 constitutes a denial of the claim by the Director. If the Director finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract. No circuit court proceedings on any claim, or a part thereof, may be filed until after final acceptance per 5-11 of all Contract work by the County or denial hereunder, whichever occurs last.

5-12.5 Pre-Settlement and Pre-Judgment Interest: Entitlement to any pre-settlement or pre-judgment interest on any claim amount determined to be valid subsequent to the County's receipt of a certified written claim in full compliance with 5-12.3, whether determined by a settlement or a final ruling in formal proceedings, the County shall pay to the Contractor simple interest calculated at the Prime Rate (as reported by the Wall Street Journal as the base rate on corporate loans posted by at least 75% of the nation's 30 largest banks) as of the 60th calendar day following the County's receipt of a certified written claim in full compliance with 5-12.3, such interest to accrue beginning 60 calendar days following the County's receipt of a certified written claim in full compliance with 5-12.3 and ending on the date of final settlement or formal ruling.

5-12.6 Compensation for Extra Work or Delay:

5-12.6.1 Compensation for Extra Work: Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 4-3.2.

5-12.6.2 Compensation for Delay: Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 5-12.6.2.1 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work caused by the County unless the delay shall have been caused by acts constituting willful or intentional interference by the County with the Contractor's performance of the work and then only where such acts continue after Contractor's written notice to the County of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, supplemental agreements, work orders, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, suspensions of work by the Director pursuant to 8-6.1, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract Time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute willful or intentional interference with the Contractor's performance of the work without clear and convincing proof that they were the result of a deliberate act, without reasonable and good-faith basis, and specifically intended to disrupt the Contractor's performance.

5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall be entitled to monetary compensation for the actual idle labor (including supervisory personnel) and equipment, and indirect costs, expenses, and profit thereon, as provided for in 4-3.2.1(4) and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

5-12.7 Mandatory Claim Records: After submitting to the Director a notice of intent to file a claim for extra work or delay, the Contractor must keep daily records of all labor, material and equipment costs incurred for operations affected by the extra work or delay. These daily records must identify each operation affected by the extra work or delay and the specific locations where work is affected by the extra work or delay, as nearly as possible. The Director may also keep records of all labor, material and equipment used on the operations affected by the extra work or delay. The Contractor shall, once a notice of intent to claim has been timely filed, and not less than weekly thereafter as long as appropriate, submit the Contractor's daily records to the Director and be likewise entitled to receive the County's daily records. The daily records to be submitted hereunder shall be done at no cost to the recipient.

5-12.8 Claims for Acceleration: The County shall have no liability for any constructive acceleration of the work, nor shall the Contractor have any right to make any claim for constructive acceleration nor include the same as an element of any claim the Contractor may otherwise submit under this Contract. If the Director gives express written direction for the Contractor to accelerate its efforts, such written direction will set forth the prices and other pertinent information and will be reduced to a written Contract Document promptly. No payment will be made on a Supplemental Agreement for acceleration prior to the County's approval of the documents.

5-12.9 Certificate of Claim: When submitting any claim, the Contractor shall certify under oath and in writing, in accordance with the formalities required by Florida law, that the claim is made in good faith, that the supportive data are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the claim accurately reflects what the Contractor in good faith believes to be the County's liability. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor.

5-12.10 Non-Recoverable Items: The parties agree that for any claim the County will not have liability for the following items of damages or expense:

1. Loss of profit, incentives or bonuses;
2. Any claim for other than extra work or delay;
3. Consequential damages, including, but not limited to, loss of bonding capacity, loss of bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work or insolvency;
4. Acceleration costs and expenses, except where the County has expressly and specifically directed the Contractor in writing "to accelerate at the County's expense"; nor
5. Attorney fees, claims preparation expenses and costs of litigation.

5-12.11 Exclusive Remedies: Notwithstanding any other provision of this Contract, the parties agree that the County shall have no liability to the Contractor for expenses, costs, or items of damages other than those which are specifically identified as payable under 5-12. In the event any legal action for additional compensation, whether on account of delay, acceleration, breach of contract, or otherwise, the Contractor agrees that the County's liability will be limited to those items which are specifically identified as payable in 5-12.

5-12.12 Settlement Discussions: The content of any discussions or meetings held between the County and the Contractor to settle or resolve any claims submitted by the Contractor against

the County shall be inadmissible in any legal, equitable, or administrative proceedings brought by the Contractor against the County for payment of such claim.

5-12.13 Personal Liability of Public Officials: In carrying out any of the provisions of the Contract, Director or any of their respective employees or agents, there shall be no liability on behalf of any employee, officer or official of the County for which such individual is responsible, either personally or as officials or representatives of the County. It is understood that in all such matters such individuals act solely as agents and representatives of the County.

5-12.14 Auditing of Claims: All claims filed against the County shall be subject to audit at any time following the filing of the claim, whether or not such claim is part of a suit pending in the Courts of this State. The audit may be performed, at the County's sole discretion, by employees of the County or by any independent auditor appointed by the County, or both. The audit may begin after ten days written notice to the Contractor, subcontractor, or supplier. The Contractor, subcontractor, or supplier shall make a good faith effort to cooperate with the auditors. As a condition precedent to recovery on any claim, the Contractor, subcontractor, or supplier must retain sufficient records, and provide full and reasonable access to such records, to allow the County's auditors to verify the claim and failure to retain sufficient records of the claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of such claim that cannot be verified and shall bar recovery thereunder. Further, and in addition to such audit access, upon the Contractor submitting a written claim, the County shall have the right to request and receive, and the Contractor shall have the affirmative obligation to submit to the County any and all documents in the possession of the Contractor or its subcontractors, materialmen or suppliers as may be deemed relevant by the County in its review of the basis, validity or value of the Contractor's claim.

Without limiting the generality of the foregoing, the Contractor shall upon written request of the County make available to the County's auditors, or upon the County's written request, submit at the County's expense, any or all of the following documents:

1. Daily time sheets and foreman's daily reports and diaries;
2. Insurance, welfare and benefits records;
3. Payroll register;
4. Earnings records;
5. Payroll tax return;
6. Material invoices, purchase orders, and all material and supply acquisition contracts;
7. Material cost distribution worksheet;
8. Equipment records (list of company owned, rented or other equipment used);
9. Vendor rental agreements and subcontractor invoices;
10. Subcontractor payment certificates;
11. Canceled checks for the project, including, payroll and vendors;
12. Job cost report;
13. Job payroll ledger;
14. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
15. Cash disbursements journal;

16. Financial statements for all years reflecting the operations on this project;
17. Income tax returns for all years reflecting the operations on this project;
18. All documents which reflect the Contractor's actual profit and overhead during the years this Contract was being performed and for each of the five years prior to the commencement of this Contract;
19. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based;
20. All documents which relate to each and every claim together with all documents which support the amount of damages as to each claim;
21. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials, equipment, subcontractors, and all documents that establish which time periods and individuals were involved, and the hours and rates for such individuals.

5-13 Recovery Rights, Subsequent to Final Payment.

The County reserves the right, if it discovers an error in the partial or final estimates, or if it discovers that the Contractor performed defective work or used defective materials, after the final payment has been made, to claim and recover from the Contractor or his surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the work and materials.

SECTION 6 CONTROL OF MATERIALS

6-1 Acceptance Criteria.

6-1.1 General: Acceptance of materials is based on the following criteria. All requirements may not apply to all materials. Use only materials in the work that meet the requirements of these Specifications. The Director may inspect and test any material, at points of production, distribution and use.

6-1.2 Sampling and Testing: Use the FDOT's current sample identification and tracking system to provide related information and attach the information to each sample. Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no additional cost to the County.

Ensure when a material is delivered to the location as described in the Contract Documents, there is enough material delivered to take samples, at no expense to the County.

6-1.2.1 Pretest by Manufacturers: Submit certified manufacturer's test results to the Director for qualification and use on County projects. Testing will be as specified in the Contract Documents. The County may require that manufacturers submit samples of materials for independent verification purposes.

6-1.2.2 Point of Production Test: Test the material during production as specified in the Contract Documents.

6-1.2.3 Point of Distribution Test: Test the material at Distribution facilities as specified in the Contract Documents.

6-1.2.4 Point of Use Test: Test the material immediately following placement as specified in the Specifications. After delivery to the project, the County may require the retesting of materials that have been tested and accepted at the source of supply, or may require the testing of materials that are to be accepted by manufacturer certification. The County may reject all materials that, when retested, do not meet the requirements of these Specifications.

6-1.3 Certification:

6-1.3.1 Manufacturer Material Certification: Submit material certifications for all materials to the Director for approval when required by the Specifications. Materials will not be considered for payment when not accompanied by a material certification. Sample material certification forms are available on FDOT's website at the following URL: <https://www.fdot.gov/materials/administration/resources/library/publications/certifications/sampleforms.shtm>. Ensure that the material certification follows the format of the sample form, is submitted on the manufacturer's letterhead and is signed by a legally responsible person employed by the manufacturer.

6-1.3.1.1 FDOT Approved Product List: This list provides assurance to Contractors, consultants, designers, and Department personnel that specific products and materials are approved for use on Department facilities. The Department will limit the Contractor's use of products and materials that require use of APL items to those listed on the APL effective at the time of placement. Where the terms Qualified Products List (QPL) appear in the Contract Documents, they will be synonymous with Approved Product List (APL).

Manufacturers seeking to have a product evaluated for the APL must submit an application, available on the Department's website at the following URL:

<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>. Applications must include the following documentation:

1. Supporting documentation as required by the Specifications, Standard Plans, and APL approval process. A sample may be requested to verify the product, in accordance with the specifications.

2. A photograph displaying the product as shipped with packaging.

3. A list displaying all components within the shipped packaging, if applicable.

4. Installation instructions and materials, if applicable.

5. Product packaging or product labels as required by the Specifications.

6. Construction material percentages and country source of materials.

7. Last two manufacturing steps and country of manufacture.

8. Manufacturer name and material designation (product name, product model/part number/style number, etc.) must be as identified on the product, product packaging, and product labels.

9. Applications must be signed by a legally responsible person employed by the manufacturer of the product.

Required test reports must be conducted by an independent laboratory or other independent testing facility. Required drawings and calculations must be signed and sealed by a Professional Engineer licensed in the State of Florida.

Products that have successfully completed the Department's evaluation process are eligible for inclusion on the APL. Manufacturers are required to submit requests to the Department for approval of any modifications or alterations made to a product listed on the APL. This includes, but is not limited to, design, raw material, or manufacturing process modifications. Modification or alteration requests must be submitted along with supporting documentation that the product continues to meet Section 6, the Specification, or Standard Plans requirements. A product sample and additional product testing and documentation may be required for the modification evaluation. Any marked variations from original test values, failure to notify the Department of any modifications or alterations, or any evidence of inadequate performance of a product may result in removal of the product from the APL.

Manufacturers must submit supporting documentation to the Department for a periodic review and re-approval of their APL products on or before the product's original approval anniversary. APL products that are not re-approved may be removed from the APL. Documentation requirements for the product review and re-approval, including schedule and criteria, are available on the Department's website at the following URL:

<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>.

6-1.3.2 Contractor Installation Certification: Submit installation certifications as required by the Contract Documents.

6-2 Applicable Documented Authorities Other Than Specifications.

6-2.1 General: Details on individual materials are identified in various material specific Sections of the Specifications that may refer to other documented authorities for requirements. When specified, meet the requirements as defined in such references.

6-2.2 Test Methods: Methods of sampling and testing materials are in accordance with the Florida Methods (FM). If an FM does not exist for a particular test, perform the testing in accordance with the method specified in the Specification. When test methods or other standards are referenced in the Specifications without identification of the specific time of issuance, use the most current issuance, including interims or addendums thereto, at the time of bid opening.

6-2.3 Construction Aggregates: Aggregates used on County projects must be in accordance with Rule-14-103,-FAC.

6-3 Storage of Materials and Samples.

6-3.1 Method of Storage: Store materials in such a manner as to preserve their quality and fitness for the work, to facilitate prompt inspection, and to minimize noise impacts on sensitive receivers. More detailed specifications concerning the storage of specific materials are prescribed under the applicable Specifications. The County may reject improperly stored materials.

6-3.2 Use of Right-of-Way for Storage: If the Director allows, the Contractor may use a portion of the right-of-way for storage purposes and for placing the Contractor's plant and equipment. Use only the portion of the right-of-way that is outside the clear zone, which is the portion not required for public vehicular or pedestrian travel. When used, restore the right-of-way to pre-construction condition at no additional cost to the County or as specified in the Contract Documents. Provide any additional space required at no expense to the County.

6-3.3 Responsibility for Stored Materials: Accept responsibility for the protection of stored materials. The County is not liable for any loss of materials, by theft or otherwise, or for any damage to the stored materials.

6-3.4 Storage Facilities for Samples: Provide facilities for storage of samples as described in the Contract Documents and warranted by the test methods and Specifications.

6-4 Defective Materials.

Materials not meeting the requirements of these Specifications will be considered defective. The Director will reject all such materials, whether in place or not. Remove all rejected material immediately from the site of the work and from storage areas, at no expense to the County.

Do not use material that has been rejected, until the Director has approved the material's use. Upon failure to comply promptly with any order of the Director made under the provisions of this Article, the Director has the authority to have the defective material removed and replaced by other forces and deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

6-4.1 Engineering Analysis: As an exception to the above, within 30 calendar days of the termination of the LOT or rejection of the material, the Contractor may submit to the Director a proposed Engineering Analysis Scope to determine the disposition of the material. The Engineering Analysis Scope must contain at a minimum:

1. Description of the defective materials.
2. Supporting information, testing or inspection reports with nonconformities, pictures, drawings, and accurately dimensioned deficiency maps as necessary. For cracked elements, provide drawings showing the location, average width, depth, length, and termination points of each crack along the surfaces. Provide the distance from each termination point to a fixed reference point on the component, such as beam end or edge of flange.
3. Proposed approach of investigation and analysis.
4. Name and credentials of the proposed Specialty Engineer or Contractor's Engineer of Record who will perform the engineering analysis.

5. Proposed testing laboratories, qualified in accordance with Section 105-7.

Upon approval of the Engineering Analysis Scope by the Director, the Specialty Engineer or Contractor's Engineer of Record may perform the engineering analysis as defined in the approved scope and submit a signed and sealed Engineering Analysis Report (EAR) to the Director. The EAR must contain at a minimum:

1. The approved Engineering Analysis Scope.
2. Any investigations performed and the associated results obtained.
3. Analysis and conclusion.
4. Proposed disposition of the material, addressing the performance and durability of the proposed action.

Provide as appropriate:

1. Written evidence of a previously approved comparable deficiency and its repair.
2. Documented research demonstrating the effectiveness of the proposed repair.
3. Engineering calculations.

A Specialty Engineer, who is an independent consultant, or the Contractor's Engineer of Record as stated within each individual Section shall perform any such analysis within 45 calendar days of the Director's approval of the Engineering Analysis Scope, complete and submit the EAR. The EAR must be signed and sealed by the Specialty Engineer or the Contractor's Engineer of Record that performed the engineering analysis. Allow for a 45 calendar day review period for all EARs associated with a category 2 bridge; tolling components identified in the current FDOT General Tolling Requirements (GTR) Part 3; and the tolling-related signing, DMS and ITS infrastructure. Allow for a 25 calendar day review period for all other items. The Director will determine the final disposition of the material after review of the EAR. No additional monetary compensation or time extension will be granted for the impact of any such analysis or review.

6-5 Products and Source of Supply.

6-5.1 Source of Supply–Convict Labor (Designated Federal-Aid Contracts Only): Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.

Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The County will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to:

1. Materials produced by convicts on parole, supervised release, or probation from a prison or,
2. Materials produced in a qualified prison facility.

The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.

6-5.2 Source of Supply (Designated State or Federal-Aid Contracts Only): Comply with Section 70914 of Public Law No. 117-58, §§ 70901-52, also known as the Infrastructure

Investment and Jobs Act (IIJA), Public Law 117-58, which includes the Build America, Buy America Act (BABA). Domestic compliance for all affected products will be listed on the APL.

6-5.2.1 Steel and Iron: Use steel and iron manufactured in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melting and continuing through the final shaping and coating. If a steel or iron product is taken outside the United States for any manufacturing process, it becomes foreign source material. When using steel or iron materials as a component of any manufactured product (e.g., concrete pipe, prestressed beams, corrugated steel pipe, etc.), these same provisions apply. Foreign steel and iron may be used when the total actual cost of such foreign materials does not exceed 0.1% of the total Contract amount or \$2,500, whichever is greater. These requirements are applicable to all steel and iron materials incorporated into the finished work but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Submit a certification from the manufacturer of steel or iron, or any product containing steel or iron, stating that all steel or iron furnished or incorporated into the furnished product was produced and manufactured in the United States or a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual cost). Submit each such certification to the Director prior to incorporating the material or product into the project. Prior to the use of foreign steel or iron materials on a project, submit invoices to document the actual cost of such material, and obtain the Director's written approval prior to incorporating the material into the project.

6-5.2.2 Manufactured Products: Use Manufactured Products that are consumed in, incorporated into, or affixed to an infrastructure project that are manufactured in the United States, in accordance with BABA requirements and applicable waivers.

6-5.2.3 Construction Materials: Use non-ferrous metals, plastic and polymer-based products, glass, lumber, and drywall articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project that are manufactured in the United States, in accordance with BABA requirements.

6-5.2.4 Exemptions to Build America, Buy America: Temporary devices, equipment, and other items removed at or before the completion of the project are exempt from BABA funding eligibility requirements. Aggregates, cementitious materials, and aggregate binding agents or additives are exempted from BABA funding eligibility requirements.

6-5.3 Contaminated, Unfit, Hazardous, and Dangerous Materials: Do not use any material that, after approval and/or placement, has in any way become unfit for use. Do not use materials containing any substance that has been determined to be hazardous by the State of Florida County of Environmental Protection or the U.S. Environmental Protection Agency (EPA). Provide workplaces free from serious recognized hazards and to comply with occupational safety and health standards, as determined by the U.S. County of Labor Occupational Safety and Health Administration (OSHA).

SECTION 7 LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

7-1 Laws to be Observed.

7-1.1 General: Become familiar with and comply with all Laws and Regulations, including all Federal, State, and Local Rules and Regulations that control the action or operation of those engaged or employed in the work or that affect material used. Pay particular attention called to the safety regulations promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). In addition, comply with Chapter 403, of the Florida Statutes, regarding control of air pollution. Direct special attention to that portion of Chapter 62-256, Rules of the Department of Environmental Protection, Florida Administrative Code, pertaining to open burning in land clearing operations. Where work or structures included in the Contract are in “Navigable Waters of the U.S.,” (reference 33 of the Code of Federal Regulations, Part 329); “Waters of the U.S.,” (reference 33 of the Code of Federal Regulations, Parts 323 and 328); or “Waters of the State,” (reference Part 4, Chapters 253 and 373 of the Florida Statutes and Section 62-340 of the Florida Administrative Code); comply with the regulatory provisions of Section 404 of the Federal Clean Water Act of 1977; Sections 9 and 10 of the Federal River and Harbor Act of 1899; Chapter 161 of the Florida Statutes; and any local authority having jurisdiction over such waters.

Obtain certification from the Construction Industry Licensing Board as required by Part I, Chapter 489, of the Florida Statutes, regardless of exemptions allowed by subsection 489.103, prior to removing underground pollutant storage tanks. Dispose of tanks and pollutants in accordance with the requirements and regulations of any Federal, State, or local, agency having jurisdiction.

Prior to building construction or renovation, submit current registrations or certifications issued by the Florida Construction Industry Licensing Board in accordance with Chapter 489, for the appropriate category of construction.

Corporations must be registered with the State of Florida, Department of State, Division of Corporations, and hold a current State Corporate Charter Number in accordance with Chapter 607, Florida Statutes.

The Contractor or the authorized subcontractor applying the roofing material must be licensed or be an approved dealer and applicator of the proposed roofing material.

Indemnify, defend, and save harmless the County and all of its officers, agents, and employees, in the amount of the Contract price, against all claims or liability arising from or based on the violation of any such Federal, State, and Local Rules and Regulations, whether by himself or his employees.

The Contractor shall comply with all environmental permits, including measures identified in the National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan and Sediment and Erosion Control Plan for the work. The Contractor’s attention is also directed to the applicable regulations of the South Florida Water Management District.

The Lee County Noise Control Ordinance is in effect regulating noise generated from construction activity associated with the project. The Contractor shall comply with the requirements therein.

The Contractor shall exert every reasonable and diligent effort to ensure that all labor employed by the Contractor and his subcontractors for work on the project work

harmoniously and compatibly with all labor used by other building and construction contractors now or hereafter on the site of the work covered by this Contract. Include this provision in all subcontracts, and require all subcontractors to include it in their subcontracts with others. However, do not interpret or enforce this provision so as to deny or abridge, on account of membership or non-membership in any labor union or labor organization, the right of any person to work as guaranteed by Article I, Section 6 of the Florida Constitution.

Comply with Chapter 556 of the Florida Statutes during the performance of excavation or demolition operations.

The Executive Order 11246 Electronic version, dated September 24, 1965 is posted on FDOT's website at the following URL address:

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/deo112468a91904c88c94148b94569982fdff3d2.pdf?sfvrsn=6b78d1d6_2

Take responsibility to obtain the information posted on this website up through five calendar days before the opening of bids and comply with the provisions contained in Executive Order 11246.

If the FDOT's website cannot be accessed, contact the FDOT's Specifications Office Web Coordinator at (850) 414-4101.

7-1.2 Plant Quarantine Regulations: The U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Services have issued quarantine regulations pertaining to control of the nematodes of citrus, Rule 5B-44, Florida Administrative Code, and other plant pests. Contact the local (or other available) representatives of the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture, and the Division of Plant Industry of the Florida Department of Agriculture and Consumer Services to ascertain all current restrictions regarding plant pests that are imposed by these agencies. Keep advised of current quarantine boundary lines throughout the construction period.

These restrictions may affect operations in connection with such items as clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, and other items which might involve the movement of materials containing plant pests across quarantine lines.

Obtain quarantine regulations and related information from the following:

Animal and Plant Health Inspection Service
U.S. Department of Agriculture
3029 Lake Alfred Road
Winter Haven, Florida 33881

Director, Division of Plant Industry
Florida Department of Agriculture and Consumer Services
Post Office Box 147100
Gainesville, Florida 32614-7100

7-1.3 Introduction or Release of Prohibited Aquatic Plants, Plant Pests, or Noxious Weeds: Do not introduce or release prohibited aquatic plants, plant pests, or noxious weeds into the project limits as a result of clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, or other such activities. Immediately notify the Director upon discovery of all prohibited aquatic plants, plant pests, or noxious weeds within the project limits. Do not move prohibited aquatic plants, plant pests, or noxious weeds within the project limits or to locations outside of the project limits without the Director's permission. Maintain all borrow material

brought onto the project site free of prohibited aquatic plants, plant pests, noxious weeds, and their reproductive parts. Refer to Rule 16C-52 and Rule 5B-57, of the Florida Administrative Code for the definition of prohibited aquatic plants, plant pests, and noxious weeds.

7-1.4 Compliance with Federal Endangered Species Act and other Wildlife Regulations: The Federal Endangered Species Act requires that the County investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a road construction project. If the County's investigation determines that there is a potential impact to a protected, threatened or an endangered species, the County will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or special conditions are necessary, these measures and conditions will be addressed in the Contract Documents or in permits as identified in 7-2.1.

In addition, in cases where certain protected, threatened or endangered species are found or appear within close proximity to the project boundaries, the County has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.

These guidelines are posted at the following URL address:

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/endangeredwildlifeguidelines.pdf?sfvrsn=e27baf3f_4.

Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.

Prior to establishing any off-project activity in conjunction with a project, notify the Director of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Project Number, Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Submit this notification at least 30 days in advance of planned commencement of the off-site activity, to allow for the County to conduct an investigation without delaying job progress.

Do not perform any off-project activity without obtaining written clearance from the Director. In the event the County's investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Director in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities. The Contractor shall maintain at the jobsite written proof of authorization for the use of any off-project property in conjunction with the project. All off-project properties shall be maintained in a neat and orderly fashion and then restored to the property owner's satisfaction upon terminating the use associated with the project.

7-1.5 Occupational Safety and Health Requirements: The Contractor shall take all precautions necessary for the protection of life, health, and general occupational welfare of all persons, including employees of both the Contractor and the County, until the Contractor has completed the work required under the Contract as provided in 5-10 and 5-11.

Comply at all times with applicable Federal, State, and local laws, provisions, and policies governing safety and health, including 29 CFR 1926, including all subsequent revisions and updates.

7-1.6 Discovery of an Unmarked Human Burial: When an unmarked human burial is discovered, immediately cease all activity that may disturb the unmarked human burial and notify the Director. Do not resume activity until specifically authorized by the Director.

7-1.7 Insecticides, Herbicides and Fertilizers:

7-1.7.1 Insecticides and Herbicides: Use products found on the following website, <http://state.ceris.purdue.edu/>, approved by the Florida Department of Agriculture and Consumer Services. The use of restricted products is prohibited. Do not use any products in the sulfonylurea family of chemicals. Herbicide application by broadcast spraying is not allowed.

Procure any necessary licenses, pay all charges and fees, and give all notices necessary for lawful performance of the work.

Ensure that all insecticides and herbicides are applied in accordance with Chapter 5E-9, Florida Administrative Code. Submit a copy of current certificates to the Director upon request.

Ensure that employees who work with herbicides comply with all applicable Federal, State, and local regulations.

Comply with all regulations and permits issued by any regulatory agency within whose jurisdiction work is being performed. Post all permit placards in a protected, conspicuous location at the work site.

Acquire any permits required for work performed on the rights-of-way within the jurisdiction of National Forests in Florida. Contact the Local National Forest Ranger District, or the United States Department of Agriculture (USDA) office for the proper permits and subsequent approval.

Acquire all permits required for aquatic plant control as outlined in Chapter 62C-20, Florida Administrative Code, Rules of the Florida Department of Environmental Protection. Contact the Regional Field Office of Bureau of Invasive Plant Management of the Florida Department of Environmental Protection for proper permits and subsequent approval. If application of synthetic organo-auxin herbicides is necessary, meet the requirements of Chapter 5E-2, Florida Administrative Code.

7-1.7.2 Fertilizer: Ensure that all employees applying fertilizer, possess a current Florida Department of Agriculture and Consumer Services Commercial Applicator license in accordance with Section 482.1562, F.S. Upon request, submit the current certificates to the Director.

7-1.8 Compliance with Section 4(f) of the USDOT Act (Designated State or Federal-Aid Contracts Only): Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.

Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources Survey discussed in 120-6.2). If such a site is proposed, notify the Director and provide a description of

the proposed off-site activity, Project Number, Financial Project ID, the location of the site by township, range, section, a county or city map showing the site location, including the access route and the name of the property. It is the Contractor's responsibility to submit justification for use of Section 4(f) property that is sufficient for the County, the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Submit this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Director to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Director.

7-1.9 Reserved.

7-2 Permits and Licenses.

7-2.1 General: Pursuant to Section 218.80, Florida Statutes, the County will pay for all County permits and fees, including license fees, permit fees, impact fees or inspection fees applicable to the Work. Contractor is not responsible for paying for permits issued by the County wherein the Work is to be performed, but is responsible for acquiring all other permits. The County may require the Contractor to deliver internal budget transfer documents to applicable County agencies when the Contractor is acquiring permits. Except for permits procured by the County, as incorporated by Special Provision expanding this Subarticle, if any, the Contractor will procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

The County will also acquire any modifications or revisions to an original permit incorporated by Special Provision to this Subarticle when the Contractor requires such modifications or revisions to complete the construction operations specified in the Plans or Special Provisions and within the right-of-way limits.

Acquire all permits for work performed outside the right-of-way or easements for the project.

In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the County as though such conditions were issued to the Contractor. Post all permit placards in a protected location at the worksite.

The Contractor shall be fully responsible for the execution and adherence to all directives, instructions, conditions, special conditions, and limiting conditions contained in permits specifically issued for the Work and which pertain to or affect the construction phase of this project, and shall be solely responsible for issuance of any Notices required thereby.

In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

7-2.2 Work or Structures in Navigable Waters of the U.S., Waters of the U.S., and Waters of the State: In general, one or more governmental agencies will exercise regulatory authority over work or structures, including related construction operations, in all tidal areas (channelward of the mean high water lines on the Atlantic and Gulf Coast); in the ocean and gulf waters to the outer limits of the continental shelf; in all rivers, streams, and lakes to the ordinary high water line; in marshes and shallows that are periodically inundated and normally characterized by aquatic vegetation capable of growth and reproduction; in all artificially created channels and canals used for recreational, navigational, or other purposes that are connected to navigable waters; and in all tributaries of navigable waters up to their headwaters.

Whenever the work under or incidental to the Contract requires structures or dredge/fill/construction activities in “Navigable Waters of the U.S.,” “Waters of the U.S.,” and “Waters of the State,” the Federal, State, county, and local regulatory agencies may require the County to obtain a permit. For such dredge/fill /construction specified in the Plans to be accomplished within the limits of the project, or for any dredge/fill/construction within the limits of County-furnished borrow areas, the County will procure the necessary permits prior to advertising for bids.

7-2.3 Reserved.

7-3 Patented Devices, Materials and Processes.

Include all royalties and costs arising from patents, trademarks, and copyrights, in any way involved in the work in the Contract price. Whenever using any design, device, material, or process covered by letters patent or copyright, obtain the right for such use by suitable legal agreement with the patentee or owner of the copyright. File a copy of such agreement with the Director. However, whether or not such agreement is made or filed as noted, the Contractor and the surety in all cases shall indemnify, defend, and save harmless, the County from all claims for infringement by reason of the use of any such patented design, device, material, or process on work under the Contract, and shall indemnify the County for all costs, expenses, and damages that it may be obliged to pay by reason of any such infringement, at any time during the prosecution or after the completion of the work.

7-4 Right-of-Way Furnished by the County.

Except as otherwise stipulated in these Specifications or as shown in the Plans, the County will furnish all rights-of-way necessary for the proper completion of the work at no expense to the Contractor.

Should County-furnished areas for obtaining borrow material, contain limerock material do not remove such material from the pit unless the Director gives specific approval.

Use of County owned right-of-way for the purpose of equipment or material storage, lay-down facilities, pre-cast material fabrication sites, batch plants for the production of asphalt, concrete or other construction related materials, or other similar activities, shall require advance written approval by the County prior to making use of said County owned right of way. Use of County owned right of way for these purposes is expressly limited to the storage of equipment and materials for the Project or production of materials or products for the Project. As a precedence to Final Acceptance of the project, any County owned right-of-way used by the Contractor shall be restored to the condition existing prior to construction, or as otherwise approved by the Director.

The County reserves the right to allow parties other than the Contractor, upon presentation of a duly authorized and satisfactory Lee County Department of Transportation Right-of-Way Permit, to perform work within the limits of construction. In all such instances, the Contractor will afford parties bearing such permits reasonable accommodation for the proper execution of the work described under the permit, including the right to store materials and equipment. All parties authorized to perform work within the right-of-way shall make, in an acceptable manner, all necessary repairs due to such work ordered by the Director and shall be subject to the conditions specified in Section 11-12 of the Lee County Administrative Code, as amended.

7-5 Reserved.

7-6 Sanitary Provisions.

The Contractor shall provide and maintain, in a neat and sanitary condition, such accommodations for the use of his employees as are necessary to comply with the requirements and regulations of the State and local boards of health. Commit no public nuisance.

7-7 Control of the Contractor's Equipment.

7-7.1 Traffic Interference: Do not allow equipment, while it is on or traversing a road or street, to unreasonably interfere with traffic.

7-7.2 Overloaded Equipment: Do not operate on any road, street or bridge including a County owned temporary bridge, any hauling unit or equipment loaded in excess of:

1. the maximum weights specified in the Florida Highway Patrol, Commercial Motor Vehicle Manual (Trucking Manual), or
2. lower weight limits legally established and posted for any section of road or bridge by FDOT, the County or other local authorities.

The governmental unit having jurisdiction over a particular road or bridge may provide exceptions by special permit under the provisions of 7-7.3.

This restriction applies to all roads and bridges inside and outside the Contract limits as long as these roads and bridges are open for public use. The Contractor may overload roads and bridges which are to be demolished after they are permanently closed to the public. The Contractor is responsible for all loss or damages resulting from equipment operated on a structure permanently closed to the public.

7-7.3 Crossings: Where it is necessary to cross an existing road or street, including specifically the existing traveled lanes of a divided highway within the limits of the project, obtain permits from the County, for crossing overloaded or oversized equipment. Cross existing roads or streets only at Director-designated points. The Director may require the Contractor to protect the pavement or Roadway at the crossing by using lumber, planks, or fill. Provide flagging and watchman service, or approved signal devices, for the protection of traffic at all such crossings, in accordance with an approved written plan for that activity. Movement of equipment around the project site must be in accordance with requirements of the Standard Plans and not create an undue hazard to the traveling public or workers.

7-7.4 Protection from Damage by Tractor-Type Equipment: Take positive measures to ensure that tractor-type equipment does not damage the road. If any such damage should occur, repair it without delay, at no expense to the County and subject to the Director's approval.

7-7.5 Contractor's Equipment on Bridge Structures: The Contractor's Engineer of Record shall analyze the effect of imposed loads on bridge structures, including County owned temporary bridges, within the limits of a construction contract, resulting from the following operations:

1. Overloaded Equipment as defined in 7-7.2:
 - a. Operating on or crossing over completed bridge structures.
 - b. Operating on or crossing over partially completed bridge structures.
2. Equipment within legal load limits:
 - a. Operating on or crossing over partially completed bridge structures.
3. Construction cranes:
 - a. Operating on completed bridge structures.
 - b. Operating on partially completed bridge structures.

4. Asphalt Milling Equipment:

a. In excess of 90,000 lbs crossing bridge structures.

b. Less than 90,000 lbs crossing bridge structures listed on the overweight routing map CRN-2 located on the Office of Maintenance Over-Weight Dimension Permits website at <https://www.fdot.gov/maintenance/owod-permit-documents#BlanketAttachments>.

Any pipe culvert(s) or box culvert(s) qualifying as a bridge under 1-3 is excluded from the requirements above.

A completed bridge structure is a bridge structure in which all elemental components comprising the load carrying assembly have been completed, assembled, and connected in their final position. The components to be considered shall also include any related members transferring load to any bridge structure.

The Contractor's Engineer of Record shall determine the effect that equipment loads have on the bridge structure and develop the procedures for using the loaded equipment without exceeding the structure's design load capacity.

Submit to the County for approval the design calculations, layout drawings, and erection drawings showing how the equipment is to be used so that the bridge structure will not be overstressed. The Contractor's Engineer of Record shall sign and seal the drawings and the cover sheet of the calculations for the County's Record Set.

7-7.6 Posting of the Legal Gross Vehicular Weight: Display the maximum legal gross weight, as specified in the Florida Uniform Traffic Code, in a permanent manner on each side of any dump truck or dump type tractor-trailer unit hauling embankment material, construction aggregates, road base material, or hot bituminous mixture to the project over any public road or street. Display the weight in a location clearly visible to the scale operator, in numbers that contrast in color with the background and that are readily visible and readable from a distance of 50 feet.

7-8 Structures over Navigable Waters.

7-8.1 Compliance with Federal and Other Regulations: When working on structures in, adjacent to, or over, navigable waters, observe all regulations and instructions of Federal and other authorities having control over such waters. Do not obstruct navigation channels without permission from the proper authority, and provide and maintain navigation lights and signals in accordance with the Federal requirements for the protection of the structure, of false work, and of navigation.

When working on moveable bridges, requests for temporarily changing the operating requirements for the moveable bridge must be submitted in writing to the appropriate Coast Guard District Bridge Branch, 90 days before the start of any action.

For all other bridges, notify the appropriate Coast Guard District Bridge Branch, at least 60 days prior to the start of any operations including construction and 30 days prior to any channel operations, closures, or opening restrictions.

When work platforms are indicated in the permit for construction, submit work platform construction plans to the appropriate Coast Guard District for approval. Obtain approval prior to beginning construction on the platform.

7-8.2 Maintenance of Channel: Where the work includes the excavation of a channel or other underwater areas to a required section, maintain the section from shoaling or other encroachment until final acceptance of the project.

In the event of accidental blocking of the navigation channel, immediately notify the U.S. Coast Guard of the blockage and upon removal of the blockage.

7-9 Use of Explosives.

When using explosives for the prosecution of the work, exercise the utmost care not to endanger life or property, including new work. The Contractor is responsible for all damage resulting from the use of explosives. Any use of explosives shall be subject to the prior written authorization of the Director.

Store all explosives in a secure manner in compliance with all laws and ordinances, and clearly mark all such storage places with the words: "DANGEROUS - EXPLOSIVES". Place such storage in the care of a competent watchman. Where no local laws or ordinances apply, provide storage satisfactory to the Director and, in general, not closer than 1,000 feet from the road or from any building, camping area, or place of human occupancy.

Notify each public utility company having structures in proximity to the site of the work of the intention to use explosives. Give such notice sufficiently in advance to enable the companies to take precautionary steps to protect their property from injury.

7-10 Forest Protection.

7-10.1 Compliance with State and Federal Regulations: In carrying out work within or adjacent to State or National forests or parks, comply with all of the regulations of the State or Federal authority having jurisdiction, governing the protection of and the carrying out of work in forests or parks, and observe all sanitary laws and regulations with respect to the performance of work in these areas. Keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction, installation, and maintenance of any construction camps, living quarters, stores, warehouses, sanitary facilities, and other structures; all in accordance with the requirements of the forest or park official.

7-10.2 Prevention and Suppression of Forest Fires: Take all reasonable precautions to prevent and suppress forest fires. Require employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress forest fires. Assist in preventing and suppressing forest fires, and make every possible effort to notify a forest official at the earliest possible moment of the location and extent of all fires. Extinguish the fire if practicable.

7-11 Preservation of Existing Property.

7-11.1 General: Preserve from damage all existing property within the project limits of or in any way affected by the Work, the removal or destruction of which is not specified in the Plans. This applies to, but is not limited to, public and private property, public and private utilities (except as modified by the provisions of 7-11.5), trees, shrubs, crops, sod, signs, monuments, fences, guardrail, pipe and underground structures, Intelligent Transportation Systems (ITS) facilities, traffic control signals and devices, highway lighting, and public highways (except natural wear and tear of highway resulting from legitimate use thereof by the Contractor).

County owned underground facility locations shown in the Plans are approximate. Unless otherwise shown in the Plans, County owned underground facilities will not be located by the County nor through notification to "Sunshine 811". Locate all fiber optic cables. Provide a fiber optic cable locator in accordance with Section 633.

Whenever the Contractor's activities damage such existing property, immediately restore it to a condition equal to or better than that existing at the time such damage occurred, at no expense to the County. Temporary repairs may be used to immediately restore ITS facilities and traffic control signals and devices. Permanent repairs to ITS facilities and traffic control signals and devices shall be made within 90 days of any temporary repairs and prior to final

acceptance of the project. Submit permanent ITS facility repair plans to the Director prior to beginning repair work.

Protect existing bridges during the entire construction period from damage caused by the Work. Immediately repair, at no expense to the County, all damage to existing bridges caused by the Work, prior to continuing the Work. The County will not require the Contractor to provide routine repairs or maintenance for such structures.

Direct special attention to the protection of all geodetic monuments, horizontal or vertical, and Public Land Survey Corners located within the project. If any geodetic monument or Public Land Survey Corner, located within the project, is at risk of being damaged or destroyed, immediately notify the Director. Locate and replace any damaged or destroyed geodetic monuments or Public Land Survey Corners under the direction of a Professional Surveyor and Mapper registered in the State of Florida.

Whenever the actions of a third party damage such existing property and is not otherwise due to any fault or activities of the Contractor, either restore it to a condition equal to or better than that existing at the time such damage occurred or provide access and coordinate with the County's maintenance Contractor in accordance with 8-4.4 as directed by the Director. The County will compensate the Contractor for the costs associated with the repairs for restoring the existing property in accordance with 4-4. Theft and vandalism are considered damage caused by a third party.

7-11.2 Failure to Restore Damaged Existing Property: In case of failure on the part of the Contractor to restore such property, bridge, road or street, or to make good such damage or injury, the Director may, upon 48 hours notice, proceed to repair, rebuild, or otherwise restore such property, road, or street as may be deemed necessary, and the County will deduct the cost thereof from any monies due or which may become due the Contractor under the Contract. Nothing in this clause prevents the Contractor from receiving proper compensation for the removal, damage, or replacement of any public or private property, not shown in the Plans, that is made necessary by alteration of grade or alignment. The Director will authorize such work, provided that the Contractor, or his employees or agents, have not, through their own fault, damaged such property.

7-11.3 Contractor's Use of Streets and Roads:

7-11.3.1 Street and Road System: When hauling materials or equipment to the project over roads and bridges on the State Highway System, State park road system, county road system, or city street system, and such use causes damage, immediately, at no expense to the County, repair such road or bridge to as good a condition as before the hauling began.

The County may modify the above requirement in accordance with any agreement the Contractor might make with the governmental unit having jurisdiction over a particular road or bridge, provided that the Contractor submits written evidence of such agreement to the Director.

7-11.3.2 Reserved.

7-11.3.3 Within the Limits of a Construction Project: The County will not allow the operation of equipment or hauling units of such weight as to cause damage to previously constructed elements of the project, including but not necessarily limited to bridges, drainage structures, base course, and pavement. Do not operate hauling units or equipment loaded in excess of the maximum weights specified in 7-7.2 on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement, and bridges. The Director may allow exceptions to these weight

restrictions for movement of necessary equipment to and from its worksite, for hauling of offsite fabricated components to be incorporated into the project, and for crossings as specified in 7-7.3.

7-11.4 Operations within Railroad Right-of-Way: Submit written advanced notification of the flagging services and railroad right-of-way access required, construction timeframe, and duration to the Engineer and District Rail Office at least 45 calendar days prior to beginning any operation within the limits of the railroad right-of-way or the adjoining 15 feet. Operations include the movement of employees, equipment, and trucks in areas other than public crossings or any traffic signal work within 500 feet of a signalized at-grade railroad crossing. The Railroad Company will notify the District Rail Office when flaggers are available for use in project scheduling.

No operations shall be conducted that affect railroad operations and property without written approval from the railroad.

7-11.4.1 Notification to the Railroad Company: Submit written notification to the Engineer, District Rail Office and the authorized Railroad Representative at least 72 hours before beginning any operation within the limits of the railroad right-of-way; any operation requiring movement of employees, trucks, or other equipment across the tracks of the railroad company at locations other than an established public crossing; and any other work that may affect railroad operations or property.

7-11.4.1.1 Florida East Coast Railway (FEC): Contact the FEC Signal Office at 904-279-3182 and FEC Railway at 1-800-342-1131, ext. 2377 in addition to the requirements in Section 7-11.4.1.

7-11.4.2 Contractor's Responsibilities: Unless instructed otherwise in writing by the Railroad Company, do not perform work within or adjacent to the railroad right-of-way without a flagger present (including temporary lane closures, lane shifts or detours). Comply with requirements deemed necessary by the railroad company's authorized representative to safeguard the railroad's property and operations.

The Contractor is responsible for all damages, delays, or injuries and all suits, actions, or claims brought on account of damages or injuries resulting from the Contractor's operations within or adjacent to railroad company right-of-way. The work includes all items necessary to relieve the flagger from providing protective services.

Costs incurred by the Railroad Company for Contractor-caused delays that adversely impact railway operations will be forwarded to the Contractor for payment. If the Contractor fails to pay said cost, the Department will deduct the amount from payments owed to the Contractor.

7-11.4.2.1 CSXT: Comply with the Construction Submission Criteria of the CSXT Public Project Information document and Construction Requirements sections of the CSXT Pipeline and Wireline Design and Construction Specifications prior to beginning work. These documents are available at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/CSXT.shtm> .

Perform no work within the limits of the railroad right-of-way on CSXT holidays (except with permission of CSXT for emergencies such as natural disasters). CSXT holidays are New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the following Friday, Christmas Eve, Christmas Day, and New Year's Eve. Holidays falling on Saturday are observed on Friday and those falling on Sunday are observed on Monday.

7-11.4.2.2 Norfolk Southern (NS): Comply with the NS Special Provisions for Protection of Railway Interests (Appendix E) and the Construction Requirements (Appendix 4.3) of the NS Public Projects Manual document prior to beginning and during all work. These documents are available at the following

URL: http://www.nscorp.com/content/dam/nscorp/ship/shipping-tools/Public_Projects_Manual.pdf.

7-11.4.2.3 FEC: Complete the On-Track Contractor Roadway Worker Training Course for FEC Railway. Contact FEC Railway at 1-800-342-1131 for training information.

7-11.4.2.4 South Florida Rail Corridor (SFRC): Complete the On-Track Contractor Roadway Worker Training Course for South Florida Regional Transportation Authority (SFRTA) Railway. Contact SFRTA at 954-788-7920 for training information.

7-11.4.3 Watchman or Flagging Services: The railroad company will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations during certain periods of the project. The Contractor will reimburse the railroad company for the cost thereof. Schedule work that affects railroad operations so as to minimize the need for protective services by the railroad company.

Submit construction schedules and schedule changes to the Engineer and District Rail Office which include an estimated start date, weekly construction schedule, daily hours of operation, and the calendar day duration for which flagging services will be necessary to perform work activities within railroad right-of-way in accordance with 8-3.2.

7-11.4.3.1 Central Florida Rail Corridor (CFRC) and SFRC: The Department will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations.

7-11.5 Utilities:

7-11.5.1 Arrangements for Protection or Adjustment: Do not commence work at points where the construction operations are adjacent to utility facilities until all necessary arrangements have been made for removal, temporary removal, relocation, de-energizing, deactivation or adjustment with the utility facilities owner to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners. The Contractor is solely and directly responsible to the owners and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by the Contractor's operations.

Do not request utility removal, temporary removal, relocation, de-energizing, deactivation, or adjustment when work can be accomplished within the utility work schedules. In the event that removal, temporary removal, relocation, de-energizing, deactivation, or adjustment of a utility or a particular sequence of timing in the relocation of a utility is necessary and has not been addressed in a utility work schedule, the Director will determine the necessity for any such utility work. Coordinate such work as to cause the least impediment to the overall construction operations and utility service. The County is not responsible for utility removal, temporary removal, relocation, de-energizing, deactivation, or adjustment work where such work is determined not necessary by the Director or done solely for the benefit or convenience of the utility owner or its contractor, or the Contractor.

7-11.5.2 Cooperation with Utility Owners: Cooperate with the owners of all underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication or rearrangement work

may be reduced to a minimum, and that services rendered by the utility owners will not be unnecessarily interrupted.

In the event of interruption of water or other utility services as a result of accidental breakage, exposure, or lack of support, promptly notify the proper authority and cooperate with the authority in the prompt restoration of service. If water service is interrupted and the Contractor is performing the repair work, the Contractor shall work continuously until the service is restored. Do not begin work around fire hydrants until the local fire authority has approved provisions for continued service.

7-11.5.3 Utility Adjustments: Certain utility adjustments and reconstruction work may be underway during the progress of the Contract. Cooperate with the various utility construction crews who are maintaining utility service. Exercise due caution when working adjacent to relocated utilities. The Contractor shall repair all damage to the relocated utilities resulting from his operations at no expense to the County. The requirements of 7-11.1 and 7-11.5.2 outline the Contractor's responsibility for protecting utility facilities. The County will include in the Contract the utility authorities who are scheduled to perform utility work on the project.

7-11.5.4 Weekly Meetings: Conduct weekly meetings on the job site with all the affected utility companies and the Director in attendance to coordinate project construction and utility relocation. Submit a list of all attendees one week in advance to the Director for approval.

Submit the approved Work Progress Schedule and Work Plan for the project, as specified in 8-3.2, to document the schedule and plan for road construction and utility adjustments.

When utility relocations no longer affect construction activities, the Contractor may discontinue the meetings with the Director's approval.

7-12 Reserved.

7-13 Reserved.

7-13.1 Reserved.

7-13.2 Reserved.

7-13.3 Reserved.

7-13.4 Insurance for Protection of Utility Owners: When the Contract involves work on or in the vicinity of utility-owned property or facilities, the utility shall be added along with the County as an Additional Insured on the policy/ies procured pursuant to subsection 7-13.2 above.

7-14 Contractor's Responsibility for Work.

The Contractor will take charge and custody of the Work, and take every necessary precaution against damage to the Work, by the action of the elements, third parties, or from any other cause whatsoever, until the County's final acceptance of the Work. The Contractor will rebuild, repair, restore, and make good all damage to any portion of the Work occasioned by any of the above causes before final acceptance of the Contract.

The County will have no obligation to pay any reimbursement for damage caused by the execution or nonexecution of the Work by the Contractor or its sub-contractors, or damage the Contractor was negligent in preventing.

The County may, at its sole discretion, reimburse the Contractor for the repair of damage to the Work not caused by a third party and due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.

7-15 Opening Sections of the Project to Traffic.

Whenever any section of the project is in acceptable condition for use, the Director may direct the Contractor to open it to vehicular or pedestrian traffic. The County's direction to open a section of the project does not constitute an acceptance of the project, or any part thereof, or waive any Contract provisions. Perform all necessary repairs or renewals, on any section of the project thus opened to traffic under direction from the Director, due to defective material or work or to any cause other than ordinary wear and tear, pending completion and the Director's acceptance of the project, or other work, at no expense to the County.

7-16 Wage Rates for Federal-Aid Projects (Designated Federal-Aid Contracts Only).

For all projects that include Federal-aid participation, the Special Provisions contain requirements with regard to payment of predetermined minimum wages. Predetermined Wage Rate Decisions (U.S. County of Labor provided Wage Rate Tables) exist for Heavy, Highway, and Building Construction Projects.

7-17 Supplemental Agreements.

Supplemental Agreements (Change Orders) shall be authorized in accordance with Procurement Policies adopted by the Lee County Board of County Commissioners.

7-18 Scales for Weighing Materials.

7-18.1 Applicable Regulations: When determining the weight of material for payment, use scales meeting the requirements of Chapter 531 of Florida Statutes, pertaining to specifications, tolerances, and regulations, as administered by the Bureau of Weights and Measures of the Florida Department of Agriculture.

7-18.2 Base for Scales: Place such scales on a substantial horizontal base to provide adequate support and rigidity and to maintain the level of the scales.

7-18.3 Protection and Maintenance: Maintain all scale parts in proper condition as to level and vertical alignment, and fully protect them against contamination by dust, dirt, and other matter that might affect their operation.

7-19 Source of Forest Products.

As required by Section 255.2575 of the Florida Statutes, where price, fitness and quality are equal, and when available, use only timber, timber piling, or other forest products that are produced and manufactured in the State of Florida. This provision does not apply to Federal-aid projects.

7-20 Regulations of Air Pollution from Asphalt Plants.

7-20.1 General: Perform all work in accordance with all Federal, State, and local laws and regulations regarding air pollution and burning. In particular, pay attention to Chapters 62-210 and 62-256, Rules of the Department of Environmental Protection, Florida Administrative Code, and to any part of the State Implementation Plan applicable to the project. See also 110-9.2 regarding burning of debris.

7-20.2 Dust Control: Control dust during the storage and handling of dusty materials by wetting, covering, or other means as approved by the Director.

7-20.3 Asphalt Material: Use only emulsified asphalt, unless otherwise stated in the Plans and allowed by Chapter 62-210, Rules of the Department of Environmental Protection, Florida

Administrative Code. Store and handle asphalt materials and components so as to minimize unnecessary release of hydrocarbon vapors.

7-20.4 Asphalt Plants: Operate and maintain asphalt plants in accordance with Chapter 62-210, Rules of the Department of Environmental Protection, Florida Administrative Code. Provide the plant site with a valid permit as required under Chapter 62-210 prior to start of work.

7-21 Dredging and Filling.

Section 370.033 of the Florida Statutes, requires that all persons, who engage in certain dredge or fill activities in the State of Florida, obtain a certificate of registration from the Florida Department of Environmental Protection, Tallahassee, Florida 32301, and that they keep accurate logs and records of all such activities for the protection and conservation of the natural resources. Obtain details as to the application of this law from the Department of Environmental Protection.

7-22 Available Funds.

All funds for payment by the County under this Contract are subject to the availability of an annual appropriation for this purpose by the County. In the event of nonappropriation of funds by the County for the work provided under this Contract, the County will terminate the Contract, without termination charge or other liability, on the last day of the then current fiscal year or when the appropriation made for the then-current year for the services covered by this Agreement has been expended, whichever event occurs first. If at any time funds are not appropriated for the continuance of this Agreement, cancellation shall be accepted by the Contractor upon 30 days prior written notice, but failure to give such notice shall be of no effect and the County shall not be obligated under this Contract beyond the date of termination.

7-23 Contractor's Motor Vehicle Registration (Designated State Aid Projects Only).

The Contractor shall provide the County with proof that all motor vehicles operated or caused to be operated by such Contractor are registered in compliance with Chapter 320 of the Florida Statutes. Submit such proof of registration on FDOT Form 700-010-52 to the County.

The County will not make payment to the Contractor until the required proof of registration is on file with the Department.

If the Contractor fails to register any motor vehicle that he operates in Florida, pursuant to Chapter 320 of the Florida Statutes, the Department may disqualify the Contractor from bidding, or the Department may suspend and revoke the Contractor's certificates of qualification.

7-24 Disadvantaged Business Enterprise Program.

The County encourages the inclusion of Disadvantage Business Enterprise (DBE) participants as defined and certified by FDOT. The Contractor shall submit to the County with the final payment documents a DBE Participation Certification, indicating all DBE Subcontractor(s) and amount(s) utilized for the project. If the Contractor did not utilize the DBE firm(s) listed on the Bid Proposal, a letter of justification shall be submitted along with the DBE Participation Certification.

7-25 On-The-Job Training Requirements (Designated Federal Aid Contracts Only).

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide On-The-Job Training aimed at developing full journeymen in the type of trade or job classification involved in the work. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Section. Ensure that, when feasible, 25% of trainees in each occupation are in their first year of training. The Contractor shall incorporate the requirements of this Section into such subcontract.

The number of trainees will be estimated on the number of calendar days of the contract, the dollar value, and the scope of work to be performed. The trainee goal will be finalized at a Post-Preconstruction Trainee Evaluation Meeting and the goal will be distributed among the work classifications based on the following criteria:

1. Determine the number of trainees on Federal Aid Contract:

a. No trainees will be required for contracts with a Contract Time allowance of less than 275 calendar days.

b. If the Contract Time allowance is 275 calendar days or more, the number of trainees shall be established in accordance with the following chart:

Estimated Contract Amount	Trainees Required
\$2,000,000 or less	0
Over \$2,000,000 to \$4,000,000	2
Over \$4,000,000 to \$6,000,000	3
Over \$6,000,000 to \$12,000,000	5
Over \$12,000,000 to \$18,000,000	7
Over \$18,000,000 to \$24,000,000	9
Over \$24,000,000 to \$31,000,000	12
Over \$31,000,000 to \$37,000,000	13
Over \$37,000,000 to \$43,000,000	14
Over \$43,000,000 to \$49,000,000	15
Over \$49,000,000 to \$55,000,000	16
Over \$55,000,000 to \$62,000,000	17
Over \$62,000,000 to \$68,000,000	18
Over \$68,000,000 to \$74,000,000	19
Over \$74,000,000 to \$81,000,000	20
Over \$81,000,000 to \$87,000,000	21
Over \$87,000,000 to \$93,000,000	22
Over \$93,000,000 to \$99,000,000	23
Over \$99,000,000 to \$105,000,000	24
Over \$105,000,000 to \$112,000,000	25
Over \$112,000,000 to \$118,000,000	26
Over \$118,000,000 to \$124,000,000	27
Over \$124,000,000 to \$130,000,000	28
Over \$130,000,000 to *	
*One additional trainee per \$6,000,000 of estimated Construction Contract amount over \$130,000,000	

Further, if the Contractor or subcontractor requests to utilize banked trainees as discussed later in this Section, a Banking Certificate will be validated at this meeting allowing credit to the Contractor for previously banked trainees. Banked credits of prime Contractors working as Subcontractors may be accepted for credit. The Contractor's Project Manager, the CEI Consultant and the Director will attend this meeting. Within ten days after the Post-Preconstruction Training Evaluation Meeting, the Contractor shall submit to the County for approval an On-The-Job Training Schedule indicating the number of trainees to be trained in each selected classification and the portion of the Contract Time during which training of each trainee is to take place. This schedule may be subject to change if any of the following occur:

1. When a start date on the approved On-The-Job Training Schedule has been missed by 14 or more days;
2. When there is a change in previously approved classifications; or
3. When replacement trainees are added due to voluntary or involuntary termination

The revised schedule will be resubmitted to and approved by the Director.

The following criteria will be used in determining whether or not the Contractor has complied with this Section as it relates to the number of trainees to be trained:

1. Credit will be allowed for each trainee that is both enrolled and satisfactorily completes training on this Contract. Credit for trainees, over the established number for this Contract, will be carried in a "bank" for the Contractor and credit will be allowed for those surplus trainees in subsequent, applicable projects. A "banked" trainee is described as an employee who has been trained on a project, over and above the established goal, and for which the Contractor desires to preserve credit for utilization on a subsequent project.

2. Credit will be allowed for each trainee that has been previously enrolled in the County's approved training program on another contract and continues training in the same job classification and completes their training on a different contract.

3. Credit will be allowed for each trainee who, due to the amount of work available in their classification, is given the greatest practical amount of training on the contract regardless of whether or not the trainee completes training.

4. Credit will be allowed for any training position indicated in the approved On-The-Job Training Schedule, if the Contractor can demonstrate that a good faith effort to provide training in that classification was made.

5. No credit will be allowed for a trainee whose employment by the Contractor is involuntarily terminated unless the Contractor can clearly demonstrate good cause for this action.

Training and upgrading of minorities, women and economically disadvantaged persons toward journeyman status is a primary objective of this Section. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. If a non-minority male is enrolled into the On-The-Job Training Program, the On-The-Job Training Notification of Personnel Action Form notifying the District Contract Compliance Manager of such action shall be accompanied by a disadvantaged certification or a justification for such action acceptable to the County. The Contractor will be given an opportunity and will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Section. This training is not intended, and shall not be used, to discriminate against any applicant for training, whether a minority, woman or disadvantaged person.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman status, or have been employed as a journeyman. The Contractor may satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established at the Post-Preconstruction Trainee Evaluation Meeting and approved by the County. Graduation to journeyman status will be based upon satisfactory completion of a Proficiency Demonstration set up at the completion of training and established for the specific training classification, completion of the minimum hours in a training classification range, and the employer's satisfaction that the trainee does meet journeyman status in the classification of training. Upon reaching journeyman status, the following documentation must be forwarded to the Director:

1. Trainee Enrollment and Personnel Action Form
2. Proficiency Demonstration Verification Form indicating completion of each standard established for the classification signed by representatives of both the Contractor and the County.

The County and the Contractor shall establish a program that is tied to the scope of the work in the project and the length of operations providing it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classifications concerned, by at least, the minimum hours prescribed for a training classification. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal Aid highway construction contract. Approval or acceptance of a training schedule shall be obtained from the County prior to commencing work on the classifications covered by the program.

A voluntary On-The-Job Training Program is available to a Contractor which has been awarded a state funded project. Through this program, the Contractor will have the option to train employees on state funded projects for "banked credit" as discussed previously in this provision, to be utilized on subsequent Federal Aid Projects where training is required. Those Contractors availing themselves of this opportunity to train personnel on state funded projects and bank trainee hours for credit shall comply with all training criteria set forth in this Section for Federal Aid Projects; voluntary banking may be denied by the County if staff is not available to monitor compliance with the training criteria.

It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial type positions. Training is permissible in lower level management positions such as office engineers, estimators, etc., where the training is oriented toward construction applications. Training in the laborer classifications, except Common/General Laborer, may be permitted provided that significant and meaningful training is provided and approved by the Director.

When approved in advance by the Director, credit will be given for training of persons in excess of the number specified herein under the current contract or a Contractor will be allowed to bank trainees who have successfully completed a training program and may apply those trainees to a training requirement in subsequent project(s) upon approval of the Director. This credit will

be given even though the Contractor may receive training program funds from other sources, provided such other source do not specifically prohibit the Contractor from receiving other form of compensation. Offsite training is permissible as long as the training is an integral part of an approved training program and does not compromise a significant part of the overall training. Credit for offsite training indicated above may only be made to the Contractor when it does one or more of the following and the trainees are concurrently employed on a Federal Aid Project:

1. Contributes to the cost of the training,
2. Provides the instruction to the trainee,
3. Pays the trainee's wages during the offsite training period.

The Contractor shall compensate the trainee at no less than the laborer rate established in the Contract at the onset of training. The compensation rate will be increased to the journeyman's wage upon graduation from the training program for the remainder of the time the trainee works in the classification in which they were trained.

The Contractor shall furnish the trainee a copy of the program they will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed. The Contractor shall enroll a trainee in one training classification at a time to completion before the trainee can be enrolled in another classification on the same project.

The Contractor shall maintain records to document the actual hours each trainee is engaged in training on work being performed as a part of this Contract.

The Contractor shall submit to the Director a copy of an On-The-Job Training Notification of Personnel Action form no later than seven days after the effective date of the action when the following actions occur: a trainee is transferred on the project, transferred from the project to continue training on another contract, completes training, is upgraded to journeyman status or voluntary terminates or is involuntary terminated from the project.

The Contractor shall furnish to the Director a copy of a Monthly Time Report for each trainee. The Monthly Time Report for each month shall be submitted no later than the tenth day of the subsequent month. The Monthly Time Report shall indicate the phases and sub-phases of the number of hours devoted to each proficiency.

Highway or Bridge Carpenter Helper, Mechanic Helper, Rodman/Chainman, and Timekeeper classifications will not be approved for the On-The-Job Training Program.

The number of trainees may be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

The Contractor will have fulfilled the responsibilities of this Specification when acceptable training has been provided to the trainee as specified above.

SECTION 8 PROSECUTION AND PROGRESS

8-1 Subletting or Assigning of Contracts.

Do not, sell, transfer, assign or otherwise dispose of the Contract or Contracts or any portion thereof, or of the right, title, or interest therein, without prior written consent of the County. If the Contractor chooses to sublet any portion of the Contract, the Contractor must submit a written request to sublet work on Form 6-Subcontractor List contained in the Proposal.

The Contractor shall provide the Director a list of all proposed subcontractors and major material suppliers at the preconstruction conference. A revised list shall be distributed each time a modification thereto is made.

Execute all agreements to sublet work in writing and include all pertinent provisions and requirements of the Contract. All other agreements must be in writing and reference all applicable Contract provisions. Upon request, submit to the County a copy of the subcontract and agreement. The subletting of work does not relieve the Contractor or the surety of their respective liabilities under the Contract.

The County recognizes a subcontractor only in the capacity of an employee or agent of the Contractor, and the Director may require the Contractor to remove the subcontractor as in the case of an employee.

8-2 Reserved.

8-3 Prosecution of Work.

8-3.1 Compliance with Time Requirements: Commence work in accordance with the accepted working schedule and provide sufficient labor, materials and equipment to complete the work within the time limit(s) set forth in the proposal. Should the Contractor fail to furnish sufficient and suitable equipment, forces, and materials, as necessary to prosecute the work in accordance with the required schedule, the Director may withhold all estimates that are, or may become due, or suspend the work until the Contractor corrects such deficiencies.

8-3.2 Submission of Contract Schedule: Within 21 calendar days after Contract award or at the preconstruction conference, whichever is earlier, submit to the Director a Contract Schedule for the project. The Director will review and respond to the Contractor within 15 calendar days of receipt.

Provide a Contract Schedule that shows the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to complete the project within the Contract Time. Show the order and interdependence of activities and the sequence for accomplishing the work. Describe all activities in sufficient detail so that the Director can readily identify the work and measure the progress on of each activity. Show each activity with a beginning work date, a duration, and an ending work date. Include activities for procurement, fabrication, and delivery of materials, plant, and equipment, and review time for shop drawings and submittals. Include milestone activities when milestones are required by the Contract Documents. In a project with more than one phase, adequately identify each phase and its completion date, and do not allow activities to span more than one phase.

Conduct sufficient liaison and provide sufficient information to indicate coordination activities with utility owners that have facilities within the limits of construction requiring adjustment.

Submit a working plan with the Contract Schedule, consisting of a concise written description of the construction plan.

The Director will return inadequate Contract Schedules to the Contractor for corrections. Resubmit a corrected schedule within 15 calendar days from the date of the Director's return transmittal.

Submit an updated Contract Schedule, for Director's acceptance, with each application for payment. The Director will review the updated schedule and respond within 7 calendar days of receipt.

By acceptance of the Contract Schedule, the Director does not endorse or otherwise certify the validity or accuracy of the activity durations or sequencing of activities. The Director will use the accepted schedule as the baseline against which to measure the progress.

If the Contractor fails to finalize either the initial or a revised Contract Schedule in the time specified, the Director will withhold all Contract payments until the Director accepts the schedule.

The Contract Schedule may indicate a completion date in advance of the expiration of Contract Time. However, the County will not be liable in any way for the Contractor's failure to complete the project prior to the expiration of Contract Time. Any additional costs, including extended overhead incurred between the Contractor's scheduled completion date and the expiration of Contract Time, shall be the responsibility of the Contractor. The Contractor shall not be entitled to claim or recover any such cost from the County.

8-3.3 Beginning Work: Do not commence work under the Contract until after the County has issued a written Notice to Proceed. The Contract Time shall commence to run from the date specified in the Notice to Proceed. Issuance of the Notice to Proceed is contingent upon and will be done subsequent to the Contractor fully satisfying the County's stated insurance and bond submittal requirements. Until the Contractor receives the Department's Notice to Proceed, the Contractor is advised that the County will not be liable for any expenses which the Contractor may incur relative to the Contract before the written Notice to Proceed is issued.

8-3.4 Provisions for Convenience of Public: Schedule construction operations so as to minimize any inconvenience to adjacent businesses or residences. Where necessary, the Director may require the Contractor to first construct the work in any areas along the project where inconveniences caused by construction operations would present a more serious handicap. In such critical locations, where there is no assurance of continuous effective prosecution of the work once the construction operations are begun, the Director may require the Contractor to delay removal of the existing (usable) facilities.

8-3.5 Preconstruction Conference: County After the award of the Contract but prior to the issuance of the written Notice-to-Proceed, a conference will be held to establish lines of communication; procedures for handling shop drawings, requests for information, applications for payment, and other submissions; and to establish a working understanding between the parties as to the Contractor's project management responsibilities.

Present at the conference will be the Contractor and his subcontractors, utility companies, CEI Consultant and the Director. The time and place of this conference will be set by the Director. The Contractor shall be represented at the conference by a person duly authorized to speak on behalf of and represent the Contractor, together with all of the Contractor's supervisory personnel who will be assigned to the project. The Contractor shall submit the following minimum information to the Director for his review and approval on or prior to the date established for the pre-construction conference:

- a. Name of the Contractor's proposed project manager.
- b. Name of the Contractor's proposed full-time superintendent.
- c. Name of the Contractor's representative for implementing and maintaining the Maintenance of Traffic Plan during construction.
- d. Personnel qualifications as may be requested by the County.
- e. Listing/qualifications of the Contractor's proposed subcontractors.
- f. Project Schedule.
- g. Traffic Control Plan/Maintenance of Traffic Plan.
- h. Applicable quality control plan(s).
- i. Name/qualifications of Contractor's Registered Professional Surveyor and Mapper in responsible charge of project layout.
- j. Name/qualifications of Contractor's quality control technician.
- k. Schedule and plan for prevention, control and abatement of erosion and water pollution per Section 104-5 of the Standard Specifications.

8-3.6 Progress Meetings: The Contractor shall attend regular progress meetings with and between the County's field representatives and those of the Contractor, subcontractors, utility companies, CEI Consultant and other parties having an interest in the Contract. The progress meetings shall be hosted by the County and shall be held at locations to be mutually agreed upon by the County and the Contractor at no less than two week intervals. The purpose of such meetings shall include, but not to be limited to, discussing all general aspects of the project and specifically addressing problem areas, schedules, progress payments, etc. The CEI Consultant shall be responsible for the preparation and distribution of the minutes.

8-4 Limitations of Operations.

8-4.1 Night Work: During active nighttime operations, furnish, place and maintain lighting sufficient to permit proper workmanship and inspection. Use lighting with 5 ft-cd minimum intensity. Arrange the lighting to prevent interference with traffic or produce undue glare to property owners. Operate such lighting only during active nighttime construction activities. Provide a light meter to demonstrate that the minimum light intensity is being maintained.

Lighting may be accomplished by the use of portable floodlights, standard equipment lights, existing street lights, temporary street lights, or other lighting methods approved by the Director.

Submit a lighting plan at the Preconstruction Conference for review and acceptance by the Director. Submit the plan as a PDF file, in the same scale as the Plans, and formatted on 11 inch by 17 inch sheets. Do not start night work prior to the Director's acceptance of the lighting plan.

During active nighttime operations, furnish, place and maintain variable message signs to alert approaching motorists of lighted construction zones ahead. Operate the variable message signs only during active construction activities.

Include compensation for lighting for night work in the Contract prices for the various items of the Contract. Take ownership of all lighting equipment for night work.

8-4.1.1 Holiday and Weekend Work: If work is authorized by the Director on holidays, weekends, or nights the Contractor shall notify the Director 72 hours in advance of the time and date on which the Contractor or any of his subcontractors propose to perform work during

such time periods to afford the Director ample time to effectively schedule his inspection personnel in accordance with the Contractor's timetable.

8-4.2 Sequence of Operations: Do not open up work to the prejudice of work already started. The Director may require the Contractor to finish a section on which work is in progress before starting work on any additional section. Specific requirements pertaining to the sequence of operations for constructing the project and maintaining traffic shall be included in the Contractor's work progress schedule.

8-4.3 Interference with Traffic: At all times conduct the work in such manner and in such sequence as to ensure the least practicable interference with traffic. Operate all vehicles and other equipment safely and without hindrance to the traveling public. Park all private vehicles outside the clear zone. Place materials stored along the roadway so as to cause no obstruction to the traveling public as possible.

Where existing pavement is to be widened and stabilizing is not required, prevent any open trench from remaining after working hours by scheduling operations to place the full thickness of widened base by the end of each day. Do not construct widening strips simultaneously on both sides of the road, except where separated by a distance of at least 1/4 mile along the road and where either the work of excavation has not been started or the base has been completed.

8-4.4 Coordination with other Contractors: Sequence the Work and dispose of materials so as not to interfere with the operations of other Contractors engaged upon adjacent work; coordinate the Work, including the placement of work zone signs and temporary traffic control device, to that of others in a proper manner, in accordance with the spirit of the Contract Documents; and perform the work in the proper sequence in relation to that of other Contractors; all as may be directed by the Director.

Each Contractor is responsible for any damage done by it or its agents to the adjoining work being performed by another contractor.

8-4.5 Drainage: Conduct the operations and maintain the work in such condition to provide adequate drainage at all times. Do not obstruct existing functioning storm sewers, gutters, ditches, and other run-off facilities. Maintain all existing storm sewers, gutters, ditches, and other run-off facilities in an operable condition as necessary to provide adequate drainage at all times.

8-4.6 Fire Hydrants: Keep fire hydrants on or adjacent to the highway accessible to fire apparatus at all times, and do not place any material or obstruction within 15 feet of any fire hydrant.

8-4.7 Protection of Structures: Do not operate heavy equipment close enough to pipe headwalls or other structures to cause their displacement.

8-4.8 Fencing: Erect permanent fence as a first order of business on all projects that include fencing where the Director determines that the fencing is necessary to maintain the security of livestock on adjacent property, or for protection of pedestrians who are likely to gain access to the project from adjacent property.

8-4.9 Contaminated Materials: When the construction operations encounter or expose any abnormal condition that may indicate the presence of a contaminated material, discontinue such operations in the vicinity of the abnormal condition and notify the Director immediately. Be alert for the presence of tanks or barrels; discolored or stained earth, metal, wood, ground water; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal as possible indicators of the presence of contaminated materials. Treat these conditions with extraordinary caution.

Make every effort to minimize the spread of any contaminated materials into uncontaminated areas.

Do not resume the construction operations in the vicinity of the abnormal conditions until so directed by the Director.

Dispose of the contaminated material in accordance with the requirements and regulations of any Local, State, or Federal agency having jurisdiction. Where the Contractor performs work necessary to dispose of contaminated material, and the Contract does not include pay items for disposal, the County will pay for this work as provided in 4-4.

The County agrees to hold harmless and indemnify the Contractor for damages when the Contractor discovers or encounters contaminated materials or pollutants during the performance of services for the County when the presence of such materials or pollutants were unknown or not reasonably discoverable. Such indemnification agreement is only effective if the Contractor immediately stops work and notifies the County of the contaminated material or pollutant problem.

Such indemnification agreement is not valid for damages resulting from the Contractor's willful, wanton, or intentional conduct or the operations of Contaminated and Hazardous Material Contractors.

8-5 Qualifications of Contractor's Personnel.

Provide competent, careful, and reliable superintendents, foremen, and workmen. Provide workmen with sufficient skill and experience to properly perform the work assigned to them. Provide workmen engaged on special work, or skilled work, such as bituminous courses or mixtures, concrete bases, pavements, or structures, or in any trade, with sufficient experience in such work to perform it properly and satisfactorily and to operate the equipment involved. Provide workmen that shall make due and proper effort to execute the work in the manner prescribed in the Contract Documents, or the Director may take action as prescribed below.

The Contractor shall assign a full-time superintendent to routinely and constantly supervise, manage, plan, monitor, schedule, and control the construction operations on behalf of the Contractor. Trade workers will not be considered to be a full-time superintendent. The Contractor's superintendent shall be present on the project at all times when the Contractor's work crews, or work crews of other parties authorized by the Director, are engaged in any activity whatsoever associated with the project. Should the Contractor fail to comply with the above condition, the Director may, at his discretion, deduct from the Contractor's partial monthly payment estimate, the amount of \$250 per hour for each hour lacking adequate superintendence. This deduction is to account for the County's loss of adequate supervision, not as a penalty, but as liquidated damages for services not rendered.

It is prohibited as a conflict of interest for a Contractor to subcontract with a Consultant to perform Contractor Quality Control when the Consultant is under contract with the County to perform work on any project described in the Contractor's Contract with the County. Prior to approving a Consultant for Contractor Quality Control, the Contractor shall submit to the County a Certificate from the proposed Consultant certifying that no conflict of interest exists.

Whenever the Director determines that any person employed by the Contractor is incompetent, unfaithful, intemperate, disorderly, or insubordinate, the Director will provide written notice and the Contractor shall discharge the person from the work. Do not employ any discharged person on the project without the written consent of the Director. If the Contractor fails to remove such person or persons, the Director may withhold all estimates that are or may become due, or suspend the work until the Contractor complies with such orders. Protect, defend,

indemnify, and hold the County, its agents, officials, and employees harmless from all claims, actions, or suite arising from such removal, discharge, or suspension of employees.

8-6 Temporary Suspension of Contractor's Operations.

8-6.1 Authority to Suspend Contractor's Operations: The Director has the authority to suspend the Contractor's operations, wholly or in part. The Director will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The County may grant an extension of Contract Time in accordance with 8-7.3.2 when determined appropriate in the County's sole judgment.

No additional compensation or time extension will be paid or granted to the Contractor when the operations are suspended for the following reasons:

1. The Contractor fails to comply with the Contract Documents.
2. The Contractor fails to carry out orders given by the Director.
3. The Contractor causes conditions considered unfavorable for continuing

the Work.

Immediately comply with any suspension order. Do not resume operations until authorized to do so by the Director in writing. Any operations performed by the Contractor, and otherwise constructed in conformance with the provisions of the Contract, after the issuance of the suspension order and prior to the Director's authorization to resume operations will be at no cost to the County. Further, failure to immediately comply with any suspension order will also constitute an act of default by the Contractor and is deemed sufficient basis in and of itself for the County to declare the Contractor in default, in accordance with 8-9, with the exception that the Contractor will not have ten calendar days to correct the conditions for which the suspension was ordered.

8-6.1.1 State of Emergency: The Director has the authority to suspend the Contractor's operations, wholly or in part, pursuant to a Governor's Declaration of a State of Emergency. The Director will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The County, at its sole discretion, may grant an extension of Contract Time and reimburse the Contractor for specific costs associated with such suspension. Further, in such instances, the County's determination as to entitlement to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the County's determination was without any reasonable factual basis.

8-6.2 Prolonged Suspensions: If the Director suspends the Contractor's operations for an indefinite period, store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way. Take every reasonable precaution to prevent damage to or deterioration of the work performed. Provide suitable drainage of the roadway by opening ditches, shoulder drains, etc., and provide any temporary structures necessary for public travel through the project.

8-6.3 Permission to Suspend Contractor's Operations: Do not suspend operations or remove equipment or materials necessary for completing the work without obtaining the Director's written permission. Submit all requests for suspension of operations in writing to the Director, and identify specific dates to begin and end the suspension. The Contractor is not entitled to any additional compensation for suspension of operations during such periods.

8-6.4 Suspension of Contractor's Operations - Holidays and Special Events: Unless the Contractor submits a written request to work during one or more days of a Holiday or Special Event at least ten calendar days in advance of the beginning date of the Holiday or Special Event

and receives written approval from the Director, the Contractor shall not work on the following days: Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Independence Day (Observed); Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Veterans Day (Observed); the Wednesday immediately preceding Thanksgiving Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; December 24 through January 2, inclusive; and Special Events noted in the Plans. Contract Time will be charged during these Holiday and Special Event periods. Contract Time will be adjusted in accordance with 8-7.3.2. The Contractor is not entitled to any additional compensation beyond any allowed Contract Time adjustment for suspension of operations during such Holiday and Special Event periods.

During such suspensions, remove all equipment and materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet the requirements of Sections 102 and 104. The Contractor is not entitled to any additional compensation for removal of equipment from clear zones or for compliance with Section 102 and Section 104 during such Holiday and Special Event periods.

8-7 Computation of Contract Time.

8-7.1 General: Perform the contracted work fully, entirely, and in accordance with the Contract Documents within the Contract Time specified in the proposal, or as may be extended in accordance with the provisions herein below.

The County considers in the computation of the Contract Time the effect that utility relocation and adjustments have on job progress and the scheduling of construction operations required in order to adequately maintain traffic, as detailed in the Plans or as scheduled in the Special Provisions.

8-7.2 Date of Beginning of Contract Time: The date on which Contract Time begins is either the date on which the Contractor actually begins work, or the date for beginning the charging of Contract Time as set forth in the proposal; whichever is earlier.

8-7.3 Adjusting Contract Time:

8-7.3.1 Increased Work: The County may grant an extension of Contract Time when it increases the Contract amount due to overruns in original Contract items, adds new work items, or provides for unforeseen work. The County will base the consideration for granting an extension of Contract Time on the extent that the time normally required to complete the additional designated work delays the Contract completion schedule.

8-7.3.2 Contract Time Extensions: The County may grant an extension of Contract Time when a controlling item of work is delayed by factors not reasonably anticipated or foreseeable at the time of bid. The County may allow such extension of time only for delays occurring during the Contract Time period or authorized extensions of the Contract Time period. When failure by the County to fulfill an obligation under the Contract results in delays to the controlling items of work, the County will consider such delays as a basis for granting a time extension to the Contract.

Whenever the Director suspends the Contractor's operations, as provided in 8-6, for reasons other than the fault of the Contractor, the Director will grant a time extension for any delay to a controlling item of work due to such suspension. The County will not grant time extensions to the Contract for delays due to the fault or negligence of the Contractor.

The County does not include an allowance for delays caused by the effects of inclement weather or suspension of Contractor's operations as defined in 8-6.4, in establishing Contract Time. The Director will continually monitor the effects of weather and, when found

justified, grant time extensions on either a bimonthly or monthly basis. The Director will not require the Contractor to submit a request for additional time due to the effects of weather.

The County will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions, related adverse soil conditions or suspension of operations as defined in 8-6.4 that prevent the Contractor from productively performing controlling items of work resulting in:

1. The Contractor being unable to work at least 50% of the normal work day on pre-determined controlling work items; or

2. The Contractor must make major repairs to work damaged by weather, provided that the damage is not attributable to the Contractor's failure to perform or neglect; and provided that the Contractor was unable to work at least 50% of the normal workday on pre-determined controlling work items.

When the County grants a time extension due to rains or other inclement weather, the Contractor shall submit any objection to the additional time in writing within ten calendar days from receipt of written notice from the Engineer. Failure to submit a written appeal within ten calendar days from receipt of the written notice shall constitute a waiver of any and all rights to appeal the County's decision at a later time.

No additional compensation will be made for delays caused by the effects of inclement weather.

The County will consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of the Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster that affects all feasible sources of supply. In such cases, the Contractor shall submit substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

The County will not consider requests for time extension due to delay in the delivery of custom manufactured equipment such as traffic signal equipment, highway lighting equipment, etc., unless the Contractor submits documentation that he placed the order for such equipment in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.

The County will consider the effect of utility relocation and adjustment work on job progress as the basis for granting a time extension only if all the following criteria are met:

1. Delays are the result of either utility work that was not detailed in the Plans, or utility work that was detailed in the Plans but was not accomplished in reasonably close accordance with the schedule included in the Contract Documents.

2. Utility work actually affected progress toward completion of controlling work items.

3. The Contractor took all reasonable measures to minimize the effect of utility work on job progress, including cooperative scheduling of the Contractor's operations with the scheduled utility work at the preconstruction conference and providing

adequate advance notification to utility companies as to the dates to coordinate their operations with the Contractor's operations to avoid delays.

The Department will consider requests for time extension due to delay in work operations within the limits of the railroad right-of-way, the adjoining 15 feet, or determined by the Railroad or Department to be able to potentially foul the tracks regardless of distance from railroad right-of-way on job progress as the basis for granting a time extension only if all the following criteria are met:

1. Delays are due to a lack of availability of Railroad protective services as required by 7-11.4.

2. Work within the limits of the railroad right-of-way or the adjoining 15 feet actually impacted progress toward completion of controlling work items.

3. The Contractor took all reasonable measures to minimize the effect of work operations within the limits of the railroad right-of-way or the adjoining 15 feet on job progress, including compliance with all provisions of 7-11.4 and 5-12, and cooperative scheduling of the Contractor's operations.

As a condition precedent to an extension of Contract Time the Contractor must submit to the Director:

A preliminary request for an extension of Contract Time must be submitted in writing to the Director within ten calendar days after the commencement of a delay to a controlling item of work. If the Contractor fails to submit this required preliminary request for an extension of Contract Time, the Contractor fully, completely, absolutely and irrevocably waives any entitlement to an extension of Contract Time for that delay. In the case of a continuing delay only a single preliminary request for an extension of Contract Time will be required. Each such preliminary request for an extension of Contract Time shall include as a minimum the commencement date of the delay, the cause of the delay, and the controlling item of work affected by the delay.

Furthermore, the Contractor must submit to the Director a request for a Contract Time extension in writing within 30 days after the elimination of the delay to the controlling item of work identified in the preliminary request for an extension of Contract Time. Each request for a Contract Time extension shall include as a minimum all documentation that the Contractor wishes the County to consider related to the delay, and the exact number of days requested to be added to Contract Time. If the Contractor contends that the delay is compensable, then the Contractor shall also be required to submit with the request for a Contract Time extension a detailed cost analysis of the requested additional compensation. If the Contractor fails to submit this required request for a Contract Time extension, with or without a detailed cost analysis, depriving the Director of the timely opportunity to verify the delay and the costs of the delay, the Contractor waives any entitlement to an extension of Contract Time or additional compensation for the delay.

Upon timely receipt of the preliminary request of Contract Time from the Contractor, the Director will investigate the conditions, and if it is determined that a controlling item of work is being delayed for reasons beyond the control of the Contractor the Director will take appropriate action to mitigate the delay and the costs of the delay. Upon timely receipt of the request for a Contract Time extension the Director will further investigate the conditions, and if it is determined that there was an increase in the time or the cost of performance of the controlling item of work beyond the control of the Contractor, then an adjustment of Contract Time will be

made, and a monetary adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly.

The existence of an accepted schedule, including any required update(s), as stated in 8-3.2, is a condition precedent to the Contractor having any right to the granting of an extension of Contract Time or any monetary compensation arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period of potential impact, or in the event the currently accepted schedule and applicable updates do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to the County's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, the County's determination as to entitlement as to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the County's determination was without any reasonable factual basis.

8-8 Reserved

8-9 Default and Termination of Contract.

8-9.1 Determination of Default: The following acts or omissions constitute acts of default and, except as to subparagraphs 9 and 11, the County will give notice, in writing, to the Contractor and his surety for any delay, neglect or default, if the Contractor:

1. fails to begin the work under the Contract within the time specified in the Notice to Proceed;
2. fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure prompt completion of the Contract;
3. performs the work unsuitably, or neglects or refuses to remove materials or to perform anew such work that the Director rejects as unacceptable and unsuitable;
4. discontinues the prosecution of the work, or fails to resume discontinued work within a reasonable time after the Director notifies the Contractor to do so;
5. becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy code, or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily;
6. allows any final judgment to stand against him unsatisfied for a period of ten calendar days;
7. makes an assignment for the benefit of creditors;
8. fails to comply with Contract requirements regarding minimum wage payments or EEO requirements;
9. fails to comply with the Director's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order; or
10. for any other cause whatsoever, fails to carry on the work in an acceptable manner, or if the surety executing the bond, for any reasonable cause, becomes unsatisfactory in the opinion of the County.
11. fails to comply with 3-9.

For a notice based upon reasons stated in subparagraphs (1) through (8) and (10): if the Contractor, within a period of ten calendar days after receiving the notice described above, fails to correct the conditions of which complaint is made, the County will, upon written certificate

from the Director of the fact of such delay, neglect, or default and the Contractor's failure to correct such conditions, have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

If the Contractor, after having received a prior notice described above for any reason stated in subparagraph (2), (3), (4), (5), (6) or (8), commits a second or subsequent act of default for any reason covered by the same subparagraph (2), (3), (4), (5), (6) or (8) as stated in the prior notice, and regardless whether the specific reason is the same, then, regardless of whether the Contractor has cured the deficiency stated in that prior notice, the County will, upon written certificate from the Director of the fact of such delay, neglect or default and the Contractor's failure to correct such conditions, have full power and authority, without any prior written notice to the Contractor and without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (9), if the Contractor fails to comply with the Director's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order, the County will, upon written certificate from the Director of the fact of such delay and the Contractor's failure to correct that condition, have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (11), if the Contractor fails to comply with 3-9, the County will have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

The County has no liability for anticipated profits for unfinished work on a Contract that the County has determined to be in default.

Notwithstanding the above, the County shall have the right to declare the Contractor (or its "affiliate") in default and immediately terminate this Contract, without any prior notice to the Contractor, in the event the Contractor (or its "affiliate") is at any time "convicted" of a "contract crime," as these terms are defined in Section 337.165(1), Florida Statutes. The County's right to default the Contractor (or its "affiliate") for "conviction" of a "contract crime" shall extend to and is expressly applicable to any and all County Contracts that were either advertised for bid; for which requests for proposals or letters of interest were requested; for which an intent to award was posted or otherwise issued; or for which a Contract was entered into, after the date that the underlying or related criminal indictment, criminal information or other criminal charge was filed against the Contractor (or its "affiliate") that resulted in the "conviction." In the event the County terminates this Contract for this reason, the Contractor shall hereby forfeit any claims for additional compensation, extra time, or anticipated profits. The Contractor shall only be paid for any completed work up to the date of termination. Further, the Contractor shall be liable for any and all additional costs and expenses the County incurs in completing the Contract work after such termination.

8-9.2 Termination of Contract for Convenience: The County may terminate the entire Contract or any portion thereof, if the Director determines that a termination is in the County's interest. The Director will deliver to the Contractor a Written Notice of Termination specifying the extent of termination and the effective date.

When the County terminates the entire Contract, or any portion thereof, before the Contractor completes all items of work in the Contract, the County will make payment for the actual number of units or items of work that the Contractor has completed, at the Contract unit price, and according to the formulas and provisions set forth in 4-3.2 for items of work partially

completed, and such payments will constitute full and complete compensation for such work or items. No payment of any kind or amount will be made for items of work not started. The County will not consider any claim for loss of anticipated profits, or overhead of any kind (including home office and jobsite overhead or other indirect impacts) except as provided in 4-3.2 for partially completed work.

The County will consider reimbursing the Contractor for actual cost of mobilization (when not otherwise included in the Contract) including moving equipment to the job where the volume of the work that the Contractor has completed is too small to compensate the Contractor for these expenses under the Contract unit prices.

The County may purchase at actual cost acceptable materials and supplies procured for the work, that the County has inspected, tested, and approved and that the Contractor has not incorporated in the work. Submit the proof of actual cost, as shown by receipted bills and actual cost records, at such points of delivery as the Director may designate.

Termination of a contract or a portion thereof, under the provisions of this Subarticle, does not relieve the Contractor or the surety of its responsibilities for the completed portion of the Contract or its obligations for and concerning any just claims arising out of the work performed.

All Contractor claims for additional payment, due to the County's termination of the entire Contract or any portion thereof, must meet the requirements of 5-12.

8-9.3 Completion of Work by County: Upon declaration of default, the County will have full authority to appropriate or use any or all suitable and acceptable materials and equipment on the site and may enter into an agreement with others to complete the work under the Contract, or may use other methods to complete the work in an acceptable manner. The County will charge all costs that the County incurs because of the Contractor's default, including the costs of completing the work under the Contract, against the Contractor. If the County incurs such costs in an amount that exceeds the sum that would have been payable under the Contract, then the Contractor and the surety shall be liable and shall pay the County the amount of the excess.

If, after the ten day notice period and prior to any action by the County to otherwise complete the work under the Contract, the Contractor establishes his intent to prosecute the work in accordance with the County's requirements, then the County may allow the Contractor to resume the work, in which case the County will deduct from any monies due or that may become due under the Contract, any costs to the County incurred by the delay, or from any reason attributable to the delay.

8-10 Liquidated Damages for Failure to Complete the Work.

8-10.1 Reserved.

8-10.2 Amount of Liquidated Damages: Applicable liquidated damages are the amounts established in the following schedule:

Original Contract Amount ..Daily Charge Per Calendar Day	
\$299,999 and under.....	\$980
\$300,000 but less than \$2,000,000.....	\$1,699
\$2,000,000 but less than \$5,000,000.....	\$2,650
\$5,000,000 but less than \$10,000,000.....	\$3,819
\$10,000,000 but less than \$20,000,000.....	\$4,687
\$20,000,000 but less than \$40,000,000.....	\$7,625
\$40,000,000 and over.....	\$10,467 plus 0.00005 of any

amount over \$40 million (Round to nearest whole dollar)
..... The Engineer may approve adjustments to the liquidated damages amounts in accordance with the Construction Project Administration Manual (CPAM) provided all contract work is complete.

8-10.3 Determination of Number of Days of Default: For all contracts, regardless of whether the Contract Time is stipulated in calendar days or working days, the Director will count default days in calendar days.

8-10.4 Conditions under which Liquidated Damages are Imposed: If the Contractor or, in case of his default, the surety fails to complete the work within the time stipulated in the Contract, or within such extra time that the County may have granted then the Contractor or, in case of his default, the surety shall pay to the County, not as a penalty, but as liquidated damages, the amount so due as determined in 8-10.2.

8-10.5 Right of Collection: The County has the right to apply, as payment on such liquidated damages, any money the County owes the Contractor.

8-10.6 Allowing Contractor to Finish Work: The County does not waive its right to liquidated damages due under the Contract by allowing the Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract Time.

8-10.7 Completion of Work by County: In the case of a default of the Contract and the completion of the work by the County, the Contractor and his surety are liable for the liquidated damages under the Contract, but the County will not charge liquidated damages for any delay in the final completion of the County's performance of the work due to any unreasonable action or delay on the part of the County.

8-11 Release of Contractor's Responsibility.

The County considers the Contract complete when the Contractor has completed all work and the County has accepted the work. The County will then release the Contractor from further obligation except as set forth in his bond, and except as provided in 5-13.

8-12 Recovery of Damages Suffered by Third Parties.

In addition to the damages provided for in 8-10.2 and pursuant to Section 337.18 of the Florida Statutes, when the Contractor fails to complete the work within the Contract Time the County may recover from the Contractor amounts that the County pays for damages suffered by third parties unless the failure to timely complete the work was caused by the County's act or omission.

SECTION 9 MEASUREMENT AND PAYMENT

9-1 Measurement of Quantities.

9-1.1 Measurement Standards: The Director will measure all work completed under the Contract in accordance with the United States Standard Measures.

9-1.2 Method of Measurements: The Director will take all measurements horizontally or vertically.

9-1.3 Determination of Pay Areas:

9-1.3.1 Final Calculation: When measuring items paid for on the basis of area of finished work, where the pay quantity is designated to be determined by calculation, the Director will use lengths and widths in the calculations based on the station to station dimensions shown in the Plans; the station to station dimensions actually constructed within the limits designated by the Director; or the final dimensions measured along the surface of the completed work within the neat lines shown in the Plans or designated by the Director. The Director will use the method or combination of methods of measurement that reflect, with reasonable accuracy, the actual surface area of the finished work as the Director determines.

9-1.3.2 Plan Quantity: When measuring items paid for on the basis of area of finished work, where the pay quantity is designated to be the plan quantity, the Director will determine the final pay quantity based on the plan quantity subject to the provisions of 9-3.2. Generally, the Director will calculate the plan quantity using lengths based on station to station dimensions and widths based on neat lines shown in the Plans.

9-1.4 Construction Outside Authorized Limits: The Director will not pay for surfaces constructed over a greater area than authorized, or for material that the Contractor has moved from outside of slope stakes and lines shown in the Plans, except where the Director provides written instruction for the Contractor to perform such work.

9-1.5 Truck Requirements: Provide all trucks with numbers and certify that all trucks used have a manufacturer's certification or permanent decal showing the truck capacity rounded to the nearest tenth of a cubic yard placed on both sides of the truck. This capacity will include the truck body only and any side boards added will not be included in the certified truck body capacity. Ensure the lettering and numbers are legible for identification purposes at all times.

9-1.6 Ladders and Instrument Stands for Bridge Projects: On bridge projects, in order to facilitate necessary measurements, provide substantial ladders to the tops of piers and bents, and place and move such ladders as the Director directs.

For bridge projects crossing water or marshy areas, supply fixed stands for instrument mounting and measurements, in accordance with the details stipulated in the Specifications for the project.

9-2 Scope of Payments.

9-2.1 Items Included in Payment: Accept the compensation as provided in the Contract as full payment for furnishing all materials and for performing all work contemplated and embraced under the Contract; also for all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance; also for all other costs incurred under the provisions of Division I.

For any item of work contained in the proposal, except as might be specifically provided otherwise in the basis of payment clause for the item, include in the Contract unit price (or lump sum price) for the pay item or items the cost of all labor, equipment, materials, tools and incidentals required for the complete item of work, including all requirements of the Section specifying such item of work, except as specifically excluded from such payments.

9-2.1.1 Reserved

9-2.1.2 Bituminous Material: Prepare a Contractor's Certification of Quantities, using the FDOT's current approved form for Superpave Asphalt Base, Driveway Asphalt Base, Asphalt Treated Permeable Base, Superpave Asphaltic Concrete, Miscellaneous Asphalt Pavement, Asphalt Concrete Friction Course, and Asphalt Rubber Membrane Interlayer pay items. Submit this certification to the Director no later than Twelve O'clock noon Monday after the estimate cut-off or as directed by the Director, based on the quantity of asphalt produced and accepted on the roadway per Contract. Ensure the certification includes the Project Number, Contract Number, Financial Project Identification (FPID) Number (if applicable), Certification Date and Number, the period the certification represents and the tons produced for each asphalt pay item.

On Contracts having an original Contract Time of more than 365 calendar days, or more than 5,000 tons of asphalt concrete, the County will adjust the bid unit price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%.

The County will determine the API for each month by averaging quotations in effect on the first day of the month at all terminals that could reasonably be expected to furnish bituminous material to projects in the State of Florida.

The API will be available on the Construction Office website before the 15th day of each month at the following URL:
<https://www.fdot.gov/construction/fuel-Bit/Fuel-Bit.shtm> .

Payment on progress estimates will be adjusted to reflect adjustments in the prices for bituminous materials in accordance with the following:

$$\text{\$ Adjustment} = (\text{ID})(\text{Gallons})$$

Where ID = Index Difference = [CAPI - 0.95(BAPI)] when the API has decreased between the month of bid and month of this progress estimate.

Where ID = Index Difference = [CAPI - 1.05(BAPI)] when the API has increased between the month of bid and month of this progress estimate.

Payment will be made on the current progress estimate to reflect the index difference at the time work was performed.

For asphalt concrete items payable by the ton or square yard, the number of gallons will be determined assuming a mix design with 6.25% liquid asphalt weighing 8.58 pounds per gallon.

For asphalt concrete items payable by the cubic yard, the number of gallons will be determined assuming a mix design with 3% liquid asphalt weighing 8.58 pounds per gallon.

9-2.2 Non-Duplication of Payment: In cases where the basis of payment clause in these Specifications relating to any unit price in the bid schedule requires that the unit price cover and

be considered compensation for certain work or material essential to the item, the County will not measure or pay for this same work or material under any other pay item that may appear elsewhere in these Specifications.

9-3 Compensation for Altered Quantities.

9-3.1 General: When alteration in Plans or quantities of work not requiring a supplemental agreement as hereinbefore provided for are offered and performed, the Contractor shall accept payment in full at Contract unit bid prices for the actual quantities of work done, and no allowance will be made for increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor, resulting either directly from such alterations, or indirectly from unbalanced allocation among the Contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursement therefore, or from any other cause.

Compensation for alterations in Plans or quantities of work requiring supplemental agreements shall be stipulated in such agreement, except when the Contractor proceeds with the work without change of price being agreed upon, the Contractor shall be paid for such increased or decreased quantities at the Contract unit prices bid in the Proposal for the items of work. If no Contract unit price is provided in the Contract, and the parties cannot agree as to a price for the work, the Contractor agrees to do the work in accordance with 4-3.2.

9-3.2 Payment Based on Plan Quantity:

9-3.2.1 Error in Plan Quantity: As used in this Article, the term “substantial error” is defined as the smaller of (1) or (2) below:

1. a difference between the original plan quantity and final quantity of more than 5%,
2. a change in quantity which causes a change in the amount payable of more than \$5,000.

On multiple job Contracts, changes made to an individual pay item due to substantial errors will be based on the entire Contract quantity for that pay item.

Where the pay quantity for any item is designated to be the original plan quantity, the County will revise such quantity only in the event that the County determines it is in substantial error. In general, the County will determine such revisions by final measurement, plan calculations, or both, as additions to or deductions from plan quantities.

In the event that either the County or the Contractor contends that the plan quantity for any item is in error and additional or less compensation is thereby due, the claimant shall submit, at their own expense, evidence of such in the form of acceptable and verifiable measurements or calculations. The County will not revise the plan quantity solely on the basis of a particular method of construction that the Contractor selects. For earthwork items, the claimant must note any differences in the existing surfaces from that shown in the Plans that would result in a substantial error to the plan quantity, and must be properly documented by appropriate verifiable level notes, acceptable to both the Contractor and the County, prior to disturbance of the existing surface by construction operations. The claimant shall support any claim based upon a substantial error for differences in the existing surface by documentation as provided above.

9-3.2.2 Authorized Changes in Limits of Work: Where the County designates the pay quantity for any item to be the original plan quantity and authorizes a plan change which results in an increase or decrease in the quantity of that item, the County will revise the plan quantity accordingly. In general, the County will determine such revisions by final measurement, plan calculations or both.

9-3.2.3 Specified Adjustments to Pay Quantities: Do not apply the limitations specified in 9-3.2.1 and 9-3.2.2 to the following:

1. Where these Specifications or Special Provisions provide that the County determines the pay quantity for an item on the basis of area of finished work adjusted in accordance with the ratio of measured thickness to nominal thickness.

2. Where these Specifications provide for a deduction due to test results falling outside of the allowable specified tolerances.

3. To payment for extra length fence posts, as specified in 550-6.3.

9-3.3 Lump Sum Quantities:

9-3.3.1 Error in Lump Sum Quantity: Where the County designates the pay quantity for an item to be a lump sum and the Plans show an estimated quantity, the County will adjust the lump sum compensation only in the event that either the Contractor submits satisfactory evidence or the County determines and furnishes satisfactory evidence that the lump sum quantity shown is in substantial error as defined in 9-3.2.1.

9-3.3.2 Authorized Changes in Work: Where the County designates the pay quantity for an item to be a lump sum and the Plans show an estimated quantity, the County will adjust compensation for that item proportionately when an authorized plan change is made which results in an increase or decrease in the quantity of that item. When the Plans do not show an estimated plan quantity or the applicable specifications do not provide adjustments for contingencies, the County will compensate for any authorized plan change resulting in an increase or decrease in the cost of acceptably completing the item by establishing a new unit price through a supplemental agreement as provided in 4-3.2.

9-3.4 Deviation from Plan Dimensions: If the Contractor fails to construct any item to Plan or to authorized dimensions within the specified tolerances, the Director, at his discretion will: require the Contractor to reconstruct the work to acceptable tolerances at no additional cost to the County; accept the work and provide the Contractor no pay; or accept the work and provide the Contractor a reduced final pay quantity or reduced unit price. The County will not make reductions to final pay quantities for those items designated to be paid on the basis of original plan quantity or a lump sum quantity under the provisions of this Article unless such reduction results in an aggregate monetary change per item of more than \$100, except that for earthwork items, the aggregate change must exceed \$5,000 or 5% of the original plan quantity, whichever is smaller. If, in the opinion of the Director, the Contractor has made a deliberate attempt to take advantage of the construction tolerances as defined in 120-12.1 to increase borrow excavation in fill sections or to decrease the required volume of roadway or lateral ditch excavation or embankment, the County will take appropriate measurements and will apply reductions in pay quantities. The County will not use the construction tolerance, as defined in 120-12.1, as a pay tolerance. The construction tolerance is not to be construed as defining a revised authorized template.

9-4 Deleted Work.

The County will have the right to cancel the portions of the Contract relating to the construction of any acceptable item therein, by making an adjustment in payment to the Contractor of a fair and equitable amount covering the value of all cancelled work less all items of cost incurred prior to the date that the Director cancels the work.

9-5 Partial Payments.

9-5.1 General: The Director will make partial payments on monthly estimates based on the amount of work that the Contractor completes during the month (including delivery of certain

materials, as specified herein below). The Director will make approximate monthly payments, and the County will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The County will base the amount of such payments on the total value of the work that the Contractor has performed to the date of the estimate, based on the quantities completed and the Contract prices, less payments previously made and less any retainage withheld.

Contract amount is defined as the original Contract amount adjusted by approved supplemental agreements.

9-5.1.1 Applications for Payment: On or before the 25th day of each month, the Contractor shall submit six notarized copies of its monthly application for payment to the CEI Consultant for Work performed during the previous month. Each application for payment shall be accompanied by the certifications described in 9-5.6. The County shall not be required to make payment until and unless these certifications are furnished by the Contractor.

Invoices received after the 25th day of each month shall be considered for payment as part of the next month's application. Within ten calendar days of receipt of each application for payment, the CEI Consultant will either:

1. indicate his approval of the requested amount;
2. indicate his approval of only a portion of the requested payment, stating in writing his reasons therefore; or
3. return the application for payment to the Contractor indicating, in writing, the reason for refusing to approve payment and the action necessary to make the payment request proper.

In the event of a total denial and return of the application for payment by the CEI Consultant, the Contractor may make the necessary corrections and resubmit the application for payment. The County shall, within thirty calendar days after County approval of an application for payment, pay the Contractor the amounts so approved. Provided, however, in no event shall the County be obligated to pay any amount greater than that portion of the application for payment approved by the CEI Consultant. Monthly payments to the Contractor shall in no way imply or constitute approval or acceptance of Contractor's Work.

9-5.1.2 Retainage: The County shall initially retain ten percent of the gross amount of each monthly application for payment or ten percent of the portion thereof approved by the CEI Consultant for payment, whichever is less. After 50% of the Contract amount has been earned, the County will reduce the retainage to five percent of each subsequent progress payment. Such sums shall be accumulated and released to the Contractor with final payment.

For purposes of determining when 50% of the Contract amount has been earned, stored materials and mobilization costs will be excluded.

Retainage will be determined for each job on multiple job Contracts. The County will not accept Securities, Certificates of Deposit or letters of credit as a replacement for retainage. Amounts withheld will not be released until payment of the final estimate.

9-5.2 Reserved

9-5.3 Withholding Payment:

9-5.3.1 Withholding Payment for Defective Work: If the County discovers any defective work or material prior to the final acceptance, or if the County has a reasonable doubt as to the integrity of any part of the completed work prior to final acceptance, then the County will

not allow payment for such defective or questioned work until the Contractor has remedied the defect and removed any causes of doubt.

9-5.3.2 Withholding Payment for Failure to Comply: The County will withhold progress payments from the Contractor if he fails to comply with any or all of the following, as applicable, within 60 days after beginning work:

1. Comply with and submit required documentation relating to prevailing wage rate provisions, Equal Employment Opportunity, On-The-Job Training, and Affirmative Action;

2. Comply with the requirement to report all necessary information, including actual payments to DBEs, all other subcontractors and major suppliers, through the Internet based Equal Opportunity Reporting System;

3. Comply with or make a good faith effort to ensure employment opportunity for minorities and females in accordance with the required contract provisions for Federal Aid Construction Contracts, and

4. Comply with or make a good faith effort to meet On-The-Job Training goals.

The County will withhold progress payments until the Contractor has satisfied the above conditions.

9-5.3.3 Withholding Payment for Other Reasons: The County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the County and the Contractor, to such extent as may be necessary in the County's opinion to protect it from loss as a result of:

1. Third party claims filed or reasonable evidence indicating probable filing of such claims;
2. Failure of the Contractor to make payment properly to Subcontractors or for labor, materials, or equipment;
3. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract amount;
4. Reasonable indication that the Work will not be completed within the Contract Time;
5. Unsatisfactory prosecution of the Work by the Contractor;
6. Failure to provide accurate and current red line documents, as-built drawings, or certified surveys;
7. Any other material breach of the Contract Documents.

If these conditions are not remedied or removed, the County may, after three calendar days' written notice, rectify the same at Contractor's expense. The County also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to the County.

9-5.4 Release of Retainage After Acceptance: When the Contractor has furnished the County with all submittals required by the Contract, such as invoices, DBE Participation Certification, properly executed and notarized Release and Affidavit, duly executed Surety's consent to final payment, EEO reports, materials certifications, certification of materials procured, etc., (excluding Contractor's letter of acceptance of final amount due and Form 21-A release) and the Director has determined that the measurement and computation of pay quantities is correct, the County may reduce the retainage to two percent of the Contract plus any amount that the County elects to deduct for defective work as provided in 9-5.3.

The County may deduct from payment estimates any sums that the Contractor owes to the County on any account. Where more than one project or job (separate project number) is included in the Contract, the County will distribute the reduced retainage as provided in the first paragraph of this subarticle to each separate project or job in the ratio that the Contract value of the work for the particular job bears to the total Contract amount.

9-5.5 Partial Payments for Delivery of Certain Materials:

9-5.5.1 General: The County will allow partial payments for new materials that will be permanently incorporated into the project and are stockpiled in approved locations in the project vicinity. Stockpile materials so that they will not be damaged by the elements and in a manner that identifies the project on which they are to be used.

The following conditions apply to all payments for stockpiled materials:

1. There must be reasonable assurance that the stockpiled material will be incorporated into the specific project on which partial payment is made.

2. The stockpiled material must be approved as meeting applicable specifications.

3. The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the project.

4. The Contractor shall submit to the Director certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material up to the unit price in the Contract.

5. Delivery charges for materials delivered to the jobsite will be included in partial payments if properly documented.

6. Partial payments will not be made for materials which were stockpiled prior to award of the Contract for a project.

9-5.5.2 Partial Payment Amounts: The following partial payment restrictions apply:

1. Partial payments less than \$5,000 for any one month will not be processed.

2. Partial payments for structural steel and precast prestressed items will not exceed 85% of the bid price for the item. Partial payments for all other items will not exceed 75% of the bid price of the item in which the material is to be used.

3. Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the County requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

9-5.5.3 Off Site Storage: If the conditions of 9-5.5.1 are satisfied, partial payments will be allowed for materials stockpiled in approved in-state locations. Additionally, partial payments for materials stockpiled in approved out-of-state locations will be allowed if the conditions of 9-5.5.1 and the following conditions are met:

1. Furnish the County a Materials Bond stating the supplier guarantees to furnish the material described in the Contract to the Contractor and County. Under this bond, the Obligor shall be the material supplier and the Obligees shall be the Contractor and the Lee County Board of County Commissioners. The bond shall be in the full dollar amount of the bid price for the materials described in the contract.

2. The following clauses must be added to the construction Contract between the Contractor and the supplier of the stockpiled materials:

“Notwithstanding anything to the contrary, <supplier> will be liable to the Contractor and Lee County, Florida County<supplier> default in the performance of this agreement.”

“Notwithstanding anything to the contrary, this agreement, and the performance bond issued pursuant to this agreement, does not alter, modify, or otherwise change the Contractor’s obligation to furnish the materials described in this agreement to Lee County, Florida County.”

3. The agreement between the Contractor and the supplier of the stockpiled materials must include provisions that the supplier will store the materials and that such materials are the property of the Contractor.

9-5.6 Certification of Payment to Subcontractors: The term “subcontractor,” as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the County has made partial payment and firms working under equipment-rental agreements. The Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the County will make a further progress (partial) payment. The Contractor shall also return all retainage withheld to the subcontractors within 30 days after the subcontractor’s work is satisfactorily complete, as determined by the County. Prior to receipt of any progress (partial) payment, the prime contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their Contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor’s work. Submit this certification in the form designated by the County.

Within 30 days of the Contractor’s receipt of the final progress payment or any other payments thereafter, except the final payment, the Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The County will honor an exception to the above when the Contractor demonstrates good cause for not making any required payment and submits written notification of any such good cause to both the County and the affected subcontractors or suppliers within said 30 day period.

The Contractor shall indemnify and provide defense for the County when called upon to do so for all claims or suits against the County, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be increased by subsequent Supplemental Agreements.

9-6 Record of Construction Materials.

9-6.1 General: For all construction materials used in the construction of the project, (except materials exempted by 9-6.2), preserve for the County’s inspection the invoices and records of the materials for a period of three years from the date of completion of the project. Apply this requirement when subcontractors purchase materials, and obtain the invoices and other materials records from the subcontractors. By providing the materials, the Contractor certifies that all invoices will be maintained for the required period.

9-6.2 Non-Commercial Materials: The provisions of 9-6.1 do not apply to materials generally classed as non-commercial, such as fill materials, local sand, sand-clay, or local materials used as stabilizer.

9-7 Disputed Amounts Due the Contractor.

The County reserves the right to withhold from the final estimate any disputed amounts between the Contractor and the County. The County will release all other amounts due, as provided in 9-8.

9-8 Acceptance and Final Payment.

9-8.1 Acceptance and Final Payment Documents: Whenever the Contractor has completely performed the work provided for under the Contract and the Director has performed a final inspection and made final acceptance (as provided in 5-10 and 5-11), and subject to the terms of 8-11, the Director will prepare a final estimate showing the value of the work as soon as the Director makes the necessary measurements and computations. The Director will correct all prior estimates and payments in the final estimate and payment. The County will pay the estimate, less any sums that the County may have deducted or retained under the provisions of the Contract, as soon as practicable after final acceptance of the work, along with all executed supplemental agreements received after final acceptance.

If the Contractor fails to furnish all required Contract Documents as listed in (1) through (9) below within 90 days of the County's offer of final payment or request for refund of overpayment, the County will not issue Acceptance and remaining retainage will continue to be withheld..

1. The Contractor has agreed in writing to accept the balance due or refund the overpayment, as determined by the County, as full settlement of his account under the Contract and of all claims in connection therewith, or the Contractor, has through the use of the Qualified Acceptance Letter, accepted the balance due or refunded the overpayment, as determined by the County, with the stipulation that his acceptance of such payment or the making of such refund does not constitute any bar, admission, or estoppel, or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and the County. To receive payment based on a Qualified Acceptance Letter, define in writing the dispute or pending claim with full particular of all items of all issues in dispute, including itemized amounts claimed for all particulars of all items, and submit it as part of the Qualified Acceptance Letter. The Contractor further agrees, by submitting a Qualified Acceptance Letter that any pending or future claim or suit is limited to those particulars, including the itemized amounts, defined in the original Qualified Acceptance Letter, and that he will commence with any such arbitration claim or suit within 820 calendar days from and after the time of final acceptance of the work and that his failure to file a formal claim within this period constitutes his full acceptance of the Director's final estimate and payment. The overpayment refund check from the Contractor, if required, will be considered a part of any Acceptance Letter executed.

2. The Contractor has properly maintained the project, as specified hereinbefore.

3. The Contractor has furnished a sworn affidavit to the effect that the Contractor has paid all bills and no suits are pending (other than those exceptions listed, if any) in connection with work performed under the Contract and that the Contractor has not offered or made any gift or gratuity to, or made any financial transaction of any nature with, any employee of the County in the performance of the Contract. Include with the listed tort liability exceptions, if any, evidence of adequate insurance coverage as required in 7-13.

4. The surety on the Contract bond consents, by completion of their portion of the affidavit and surety release subsequent to the Contractor's completion of his portion, to final

payment to the Contractor and agrees that the making of such payment does not relieve the surety of any of its obligations under the bond.

5. The Contractor has complied with and settled all requirements pertaining to any wage-rate provisions.

6. The Contractor has submitted all required mill tests and analysis reports to the Director.

7. The Contractor has furnished the Construction Compliance with Specifications and Plans Certification. Provide the Director with a notarized final certification of compliance with the requirements of Section 105 to accompany the final estimate. Certification must be on a form provided by the Director.

8. The Contractor has submitted and the County has accepted all as-built drawings and certified surveys.

9. The Contractor has furnished all required manufacturers' warranties to the Director.

9-8.2 Reserved

9-9 Reserved

9-10 Offsetting Payments.

1. After settlement or final adjudication of any claim of the County for work done pursuant to a construction contract with any party, the County may offset such amount from payments due for work done on any construction contract, excluding amounts owed to subcontractors, suppliers, and laborers, which it has with the party owing such amount if, upon demand, payment of the amount is not made within 60 days to the County.

2. Offsetting any amount pursuant to (1) above shall not be considered a breach of Contract by the County.

EXHIBIT F
INSURANCE REQUIREMENTS

CERTIFICATES OF INSURANCE

(1) The Contractor shall obtain and maintain such insurance as will protect it from: (1) claims under workers' compensation laws, disability benefit laws, or other similar employee benefit laws; (2) claims for damages because of bodily injury, occupational sickness or disease or death of its employees including claims insured by usual personal injury liability coverage; (3) claims for damages because of bodily injury, sickness or disease, or death of any person other than its employees including claims insured by usual personal injury liability coverage; and (4) from claims for injury to or destruction of tangible property including loss of use resulting there from -- any or all of which claims may arise out of, or result from, the services, Work and operations carried out pursuant to and under the requirements of the Contract Documents, whether such services, Work and operations be by the Contractor, its employees, or by Subcontractor(s), or anyone employed by or under the supervision of any of them, or for whose acts any of them may be legally liable.

(2) This insurance shall be obtained and written for not less than the limits of liability specified hereinafter, or as required by law, whichever is greater.

(3) The Contractor shall require, and shall be responsible for ensuring throughout the time the Agreement is in effect, that any and all of its Subcontractors obtain and maintain until the completion of that Subcontractor's work, such of the insurance coverages described herein as are required by law to be provided on behalf of their employees and others.

(4) The Contractor shall obtain, have and maintain during the entire period of the Agreement insurance policies, which contain the following information and provisions:

- (A) The name and type of policy and coverages provided;
- (B) The amount or limit applicable to each coverage provided;
- (C) The date of expiration of coverage;
- (D) The designation of the County as an additional insured and a certificate holder (This requirement may be excepted for workers' compensation and professional liability Insurance);
- (E) The following clause must appear on the Certificate of Insurance:

Should any material change occur in any of the above described policies or should any of said policies be canceled before the expiration date thereof, the issuing company shall mail at least thirty (30) calendar days' written notice to the County.

(5) If the initial, or any subsequently issued Certificate of Insurance expires prior to the completion of the Work or termination of the Agreement, the Contractor shall furnish to the County, in triplicate, renewal or replacement Certificate(s) of Insurance not

later than thirty (30) calendar days prior to the date of their expiration. Failure of the Contractor to provide the County with such renewal certificate(s) shall be considered justification for the County to terminate the Agreement.

(6) Contractor shall include the County, the County's agents, officers and employees in the Contractor's General Liability and Automobile Liability policies as additional insureds.

(7) If the County has any objection to the coverage afforded by other provisions of the insurance required to be purchased and maintained by Contractor in accordance with the requirements of the Contract Documents on the basis of its not complying with the Contract Documents, the County shall notify Contractor in writing thereof within thirty (30) calendar days of the delivery of such certificates to the County. Contractor shall provide to the County such additional information with respect to its insurance as may be requested.

(8) The Contractor shall obtain and maintain the following insurance coverages as provided hereinbefore, and in the type, amounts and in conformance with the following minimum requirements:

[Insert the insurance requirements provided by Risk Management for this project.]

EXHIBIT G
RELEASE AND AFFIDAVIT

COUNTY OF _____

STATE OF FLORIDA

Before me, the undersigned authority, personally appeared _____,
who after being duly sworn, deposes and says:

(1) In accordance with the Contract Documents and in consideration of \$_____ paid, _____ ("Contractor") releases and waives for itself and its subcontractors, materialmen, successors and assigns, all claims demands, damages, costs and expenses, whether in contract or in tort, against Lee County, Florida (the "County"), its Board of County Commissioners, employees and agents relating in any way to the performance of the Agreement between Contractor and the County, dated _____, _____, for the period from _____ to _____.

(2) Contractor certifies for itself and its subcontractors, materialmen, successors and assigns, that all charges for labor, materials, supplies, lands, licenses and other expenses for which the County might be sued or for which a lien or a demand against any Payment Bond might be filed, have been fully satisfied and paid.

(3) Contractor agrees to indemnify, defend and save harmless the County, its Board of County Commissioners, employees and agents from all demands or suits, actions, claims of liens or other charges filed or asserted against the County arising out of the performance by Contractor of the Work covered by this Release and Affidavit.

(4) This Release and Affidavit is given in connection with Contractor's [monthly/final] application for payment No.____.

CONTRACTOR:

By: _____ (signature of the executive officer)

Its: _____ (title of the executive officer)

Date: _____

Witnesses

[Corporate Seal]

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, _____, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ as identification and did (did not) take an oath.

My Commission Expires: _____
(Signature of Notary)

Name: _____
(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Commission No.: _____

EXHIBIT H CHANGE ORDER FORM



Lee County Construction Contract Change Order

Print Form

Number: _____

A Change Order requires approval by the Department Director for expenditures under \$50,000, approval by the County Manager for expenditures between \$50,000.01 and \$100,000, or approval by the Board of County Commissioners for expenditures over \$100,000

Contract /
Project
Name: _____

Contractor: _____

Contract #: _____ Project #: _____ Bid #: _____

Lee County Project Manager: _____

Fiscal Staff: _____ Date of Request: _____

Upon the completion and execution of this Change Order by both parties to the Contract, the Contractor is authorized to and shall proceed to make the following changes in the Contract Documents:
(If you need space other than what has been provided, please attach additional sheets.)

Attachments:
(List documents supporting change) _____

Description: _____

Purpose of
Change Order: _____

Change in Contract Price	Dollar Amount	Change in Contract Time	Calendar Days
Original Contract Price		Original Contract Time	
Previous Change Order No. _____		Net Change from Previous Change Orders	
Contract Price Prior to this Change Order		Contract Time Prior to this Change Order	
Net Increase (Decrease) of this Change Order		Net Increase (Decrease) of this Change Order	
Contract Price with All Approved Change Orders		Contract Time with All Approved Change Orders	

It is understood and agreed that the acceptance of this modification by the CONTRACTOR constitutes an accord and satisfaction, and represents payment in full (both time and money) for all costs arising out of, or incidental to, the above mentioned change.

Name of Contractor Date Accepted

Contact Email Address Contact Phone #

Lee County Board of County Commissioners
2115 Second St. - Fort Myers, FL 33901
PO Box 398 - Fort Myers, FL 33902-0398
Main Phone: (239) 533-2111

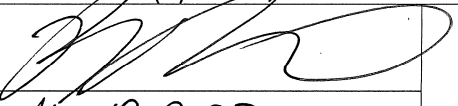
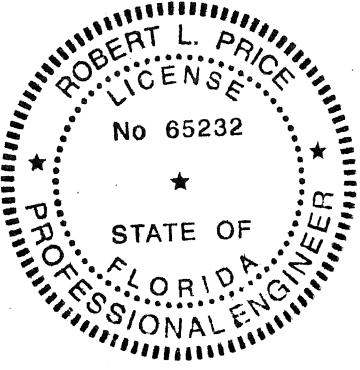
Rev. 12/2015

EXHIBIT I
SUPPLEMENTAL SPECIFICATIONS

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Division I-General Requirements and Covenants	I-2
Division II-Construction Details	I-3
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2. Section 430-Pipe Culverts and Storm Sewers	I-4
Division III-Materials	I-4

I hereby certify that these Supplemental Specifications have been properly prepared by me, or under my responsible charge:

Supplemental Specification Section(s): 102, 430		
Signature:		
Date:	May 12, 2023	
Engineer of Record:	Robert L. Price, PE	
Florida License No.:	65232	
Firm Name:	Lee County DOT	
Firm Address:	1500 Monroe St	
City, State, Zip Code:	Fort Myers, FL 33901	
Cert. of Authorization No:	N/A	

DIVISION I-GENERAL REQUIREMENTS AND COVENANTS

RESERVED

DIVISION II-CONSTRUCTION DETAILS

SECTION 102 – MAINTENANCE OF TRAFFIC (LCDOT 10/27/2017)

Article 102-4: Delete Article 102-4 in its entirety and substitute the following:

The Contractor shall submit a complete Traffic Control Plan (TCP) to the Engineer for review and approval at the preconstruction meeting. Prepare the TCP in conformance with and in the form prescribed in the current version of the FDOT Design Manual, FDOT Standard Plans – Index 102-600 series and the MUTCD. Indicate in the plan a TCP for each phase of activities. Take responsibility for identifying and assessing any potential impacts to a utility that may be caused by the TCP, and notify the Department in writing of any such potential impacts to utilities. The TCP shall be signed and sealed by a professional engineer duly registered in the State of Florida.

Engineer's approval of the TCP does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those depicted in the original Contract Documents, and which effect a change in utility work different from that shown in the utility plans, joint project agreements, interlocal agreements or utility relocation schedules.

The County reserves the right to reject any Traffic Control Plan. Obtain the Engineer's written approval before beginning work using a TCP. The Engineer's written approval is required for all modifications to the TCP. The Engineer will only allow changes to the TCP without proper documentation on an emergency basis.

Pedestrian and/or bicycle traffic must be safely and continuously maintained through, or around, work zones on highway or streets where pedestrian and bicyclists were permitted at the start of the project. The Contractor shall submit a plan for approval signed and sealed by a professional engineer duly licensed in the State of Florida for the safe passage of pedestrian and bicycle traffic prior to closure of any existing pedestrian facility. Facilities constructed to specifically provide access for pedestrians in or around work zones must be consistent with the current PROWAG. The plan shall detail the rerouting of users, duration of closure and proposed construction methods for any temporary facility. Payment for this work shall be included in price bid for Pay Item 102-1a -Maintenance of Pedestrian and Bicycle Traffic.

All costs for maintenance of traffic including preparation of Traffic Control Plan shall be included in the price bids for Pay Item 102-1 – Maintenance of Traffic, except as expressly provided for in other pay items in the contract.

Subarticle 102-9.16: Delete Subarticle 102-9.16 in its entirety and substitute the following:

Temporary Traffic Detection Technology – Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the

contract and restore any loss of detection within 12 hours. Video detection shall be installed at the beginning of the project before any loss of detection has occurred. The contractor shall furnish, install and operate video detection using technology approved by Lee DOT Traffic Division and as listed in Lee DOT Traffic plans specifications posted on the county website at. <https://www.leegov.com/dot/traffic/trafficstandard>

SECTION 430 – PIPE CULVERTS AND STORM SEWERS (LCDOT 10/27/2017)

Article 430-3: Articles 430-3.1 is modified as follows:

Pipe material for storm sewer or cross drain installations under pavement shall consist of steel reinforced concrete pipe in accordance with Section 449 and shall be a minimum of Class III or HE-III.

DIVISION III-MATERIALS

RESERVED

EXHIBIT J
SPECIAL PROVISIONS

1. CONTRACT TIME

Contractor shall perform the contracted work fully, entirely, and in accordance with the Contract Documents within the Contract Time specified herein. If the Contractor fails to complete the work within the time stipulated, liquidated damages will apply in accordance with Standard Specification Article 8-10 Liquidated Damages for Failure to Complete the Work.

Contract Time: 365 Calendar Days after Notice to Proceed is issued to Final Acceptance

*Permanent Traffic Signal Repairs, excluding the repairs of overhead signs, preemption, Uninterruptible Power Supply, street light arms and fixtures, shall be completed **180 CALENDAR DAYS** from the Notice to Proceed or the Purchase Order date, whichever applies.*

2. PERMITS

In accordance with Article 7-2 of Division I, permits and licenses procured by the County are listed below and attached hereto.

RESERVED

3. GEOTECHNICAL INFORMATION

Certain subsurface explorations and/or testing were conducted by the County in the design of this Project. Reports summarizing this work are listed below and attached hereto. The attached information is NOT a part of the Contract Documents and is provided as a supplement for informational purposes only. The County is not responsible for the accuracy, completeness or usefulness thereof. The County makes no warranty, express or implied, for the data, interpretations or opinions contained therein. Any person or party that utilizes the attached information does so purely at its own risk, and the County disclaims any responsibility or liability for any user's reliance upon the information.

RESERVED

EXHIBIT K
TECHNICAL SPECIAL PROVISIONS

RESERVED

EXHIBIT L
FDOT AND LEE COUNTY DESIGN STANDARDS

The following design standards are expressly agreed to be incorporated by reference and made a part of this Agreement:

1. Florida Department of Transportation **FY 2023-24** Standard Plans as published at the following link:

<https://www.fdot.gov/design/standardplans/SPRBC.shtm>

2. Lee County Department of Transportation Plan Specifications for Sign Installation, **JANUARY 14, 2021** edition as published at the following link:

<http://www.leegov.com/dot/traffic/trafficinstallations>

3. Lee County Department of Transportation Supplemental Specifications for Traffic Signal & Street Lighting, **JANUARY 2023** edition as published at the following link:

<http://www.leegov.com/dot/traffic/trafficstandard>

4. Lee County Utilities Design Manual, the latest edition as published at the following link:

<http://www.leegov.com/utilities/design-manual>

In the event of discrepancies between the Lee County and FDOT design standards, Lee County Standards shall govern.

EXHIBIT M
DEVELOPMENTAL SPECIFICATIONS

RESERVED

EXHIBIT N
CONTRACTOR'S BACKGROUND SCREENING AFFIDAVIT



**CONTRACTOR BACKGROUND
SCREENING AFFIDAVIT**

Florida Statutes Chapter 435 governs required background screenings for any employees, contractors, subcontractors, or agents of the Contractor who will have contact with any vulnerable person, as defined by statute, or who otherwise are required to undergo a Level 1 or Level 2 background screening in accordance with Florida law.

The Contractor is responsible for ensuring that such required background screenings are conducted in accordance with Florida Statutes Chapter 435. Documentation of such completed background screenings must be maintained for a period of no less than five (5) years and are subject to audit by Lee County at any time during such five (5) year period.

Under penalty of perjury, I declare that I have read and understand the requirements stated above, and that all required background screenings shall be conducted in accordance with this affidavit. I further understand that there may be additional local, state, and federal regulations that may require background screening, and that the Contractor will be solely responsible for complying with such legal requirements. Furthermore, the Contractor shall indemnify and hold Lee County harmless from any and all claims or actions resulting from failure to comply with this affidavit.

Date: _____

Signature

STATE OF _____
COUNTY OF _____

Name/Title

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this ____ day of _____, _____, by the above-named person and in their stated capacity, and is either personally known to me or who has produce the following as identification: _____.

[Stamp/seal required]

Signature, Notary Public

EXHIBIT O
OTHER RELEVANT FORMS

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated 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. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

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, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

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. 23 CFR 633.102(e).

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) in accordance with 23 CFR 633.102. 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 solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A 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 Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 230, Subpart A, 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 (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, 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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 thereunder. 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, sexual orientation, gender identity, 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, 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. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

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 more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

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, 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 Administrator for determination. The 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 (29 CFR 5.5)

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 (29 CFR 5.5)

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. 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 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), 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 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 18 U.S.C. 1001 and 31 U.S.C. 231.

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 (29 CFR 5.5)

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. 23 CFR 230.111(e)(2). 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 as provided in 29 CFR 5.5.

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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 (29 CFR 5.5)

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

Pursuant to 29 CFR 5.5(b), 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. 29 CFR 5.5.

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 currently provided in 29 CFR 5.5(b)(2)* 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. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

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. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 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. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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" in paragraph 1 of Section VI 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: (based on longstanding interpretation)

- (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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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. Pursuant to 23 CFR 635.116(c), 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

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. 2 CFR 180.220 and 1200.220.

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. 2 CFR 180.320.

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. 2 CFR 180.325.

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. 2 CFR 180.345 and 180.350.

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, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 180.330.

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. 2 CFR 180.220 and 180.300.

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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

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 CFR 180.325.

* * * * *

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 CFR 180.335;.

(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, 2 CFR 180.800;

(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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. 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). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.

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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "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 recipient or subrecipient 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. 2 CFR 1200.220 and 1200.332.

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. 2 CFR 180.220 and 1200.220.

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 System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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. 2 CFR 180.325.

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:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should 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 Part 20, App. A.

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.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LAP CERTIFICATION OF CURRENT CAPACITY

525-010-46
PROGRAM MANAGEMENT
09/20
Page 1 of 2

CONFIDENTIAL per Ch 337.14(1) F.S.

For bids to be received on _____
(Letting Date)

Fill in your FDOT Vendor Number

VF _____

(Only applicable to FDOT pre-qualified contractors)

CERTIFICATE

I hereby certify that the amount of any proposal submitted by this bidder for the above letting does not exceed the amount of the Firm's CURRENT CAPACITY (maximum capacity rating less total uncompleted work).

The total uncompleted work as shown on
the "Status of Contracts on Hand" report (page 2) \$ _____

I further certify that the "Status of Contracts on Hand" report (page 2) was prepared as follows:

1. If the letting is before the 25th day of the month, the certificate and report reflect the uncompleted work as of the 15th day of the month, last preceding the month of the letting.
2. If the letting is after the 25th day of the month, the certificate and report reflects the uncompleted work in progress as of the 15th day of the month of the letting.
3. All new contracts (and subcontracts) awarded earlier than five days before the letting date are included in the report and charged against our total rating.

I certify that the information above is correct.

NAME OF FIRM

Sworn to and subscribed this _____ day
of _____, 20 _____

By: _____

Title

STATUS OF CONTRACTS ON HAND

(Furnish complete information about all your contracts, whether prime or subcontracts;
whether in progress or awarded, but not yet begun; and regardless of whom contracted with.)

1	2	3	4	5	6
PROJECTS OWNER, LOCATION AND DESCRIPTION	CONTRACT (OR SUBCONTRACT) AMOUNT	AMOUNT SUBLET TO OTHERS	BALANCE OF CONTRACT AMOUNT	UNCOMPLETED AMOUNT TO BE DONE BY YOU	
				AS PRIME CONTRACTOR	AS SUBCONTRACTOR
TOTALS				\$0.00	\$0.00
TOTAL UNCOMPLETED WORK ON HAND TO BE DONE BY YOU (TOTAL COLUMNS 5 AND 6)				\$0.00	

NOTE: Columns 2 and 3 to show total contract (or subcontract) amounts. Column 4 to be difference between columns 2 and 3. Amount in columns 5 or 6 to be uncompleted portion of amount in column 4. All amounts to be shown to nearest \$100. The Contractor may consolidate and list as a single item all contracts which, individually, do not exceed 3% of total, and which, in the aggregate, amount to less than 20% of the total.

Date

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES
ON FEDERAL-AID CONTRACTS
(Compliance with 49CFR, Section 20.100 (b))

375-030-33
PROCUREMENT
10/01

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of 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.

(2) 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 of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

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 Section 1352, Title 31, U.S. Code. 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.

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

Name of Consultant: _____

By: _____ Date: _____

Authorized Signature: _____

Title: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISCLOSURE OF LOBBYING ACTIVITIES

375-030-34
PROCUREMENT
02/16

Is this form applicable to your firm?

YES ☐ NO ☐

If *no*, then please complete section 4 below for "Prime"

1. Type of Federal Action: a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application b. initial award c. post-award	3. Report Type: a. initial filing b. material change For Material Change Only: Year: _____ Quarter: _____ Date of last report: _____ (mm/dd/yyyy)
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> : _____ _____ _____ Congressional District, <i>if known</i> : 4c _____	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: _____ _____ _____ Congressional District, <i>if known</i> : _____	
6. Federal Department/Agency: _____ _____ _____	7. Federal Program Name/Description: _____ _____ CFDA Number, <i>if applicable</i> : _____	
8. Federal Action Number, <i>if known</i>: _____	9. Award Amount, <i>if known</i>: \$ _____	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i> _____ _____ _____	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i> _____ _____ _____	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date (mm/dd/yyyy): _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**NON-COLLUSION DECLARATION AND
COMPLIANCE WITH 49 CFR § 29**

575-060-13
RIGHT OF WAY
05/01
Page 1 of 3

ITEM/SEGMENT NO.: _____
F.A.P. NO.: _____
MANAGING DISTRICT: _____
PARCEL NO.: _____
COUNTY OF: _____
BID LETTING OF: _____

I, _____, hereby declare that I am
(NAME)
_____ of _____
(TITLE) (FIRM)
of _____
(CITY AND STATE)

and that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid on this State Project.

I further declare that:

1. The prices(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.
3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.
8. As required by Section 337.165, Florida Statutes, the firm has fully informed the Department of Transportation in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(1)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

- (a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;
- (b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; 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;
- (c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and
- (d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default.

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action. Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: _____ (Seal)

BY: _____
NAME AND TITLE PRINTED

WITNESS: _____

BY: _____
SIGNATURE

WITNESS: _____

Executed on this _____ day of _____, _____

**FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT
MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE**

REQUIRED CONTRACT PROVISIONS

This certification applies to subcontractors, material suppliers, vendors and other lower tier participants.

- Appendix B of 49 CFR Part 29 –

Appendix B—Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered. 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.
3. 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 when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to whom this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that 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.
6. 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.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. 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 a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 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 Covered Transactions

- (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 participation in this transaction 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.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION-
LOWER TIER COVERED TRANSACTIONS FOR FEDERAL AID CONTRACTS**
(Compliance with 2 CFR Parts 180 and 1200)

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant/Contractor: _____

By: _____

Date: _____

Title: _____

Instructions for Certification

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 contractor). "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.



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPRIETARY PRODUCT CERTIFICATION

630-020-07
PROGRAM MANAGEMENT
06/16

To: Kevin S. Ingle, P.E.
Design Engineer

Date: 5/26/2023

Financial Project ID: TBD New Const. ☐ RRR ☐
Federal Aid Number: TBD
Project Name: HURRICANE IAN - PERMANENT TRAFFIC SIGNAL REPAIRS
State Road Number: NA Co. / Sec. / Sub.: Lee
Begin Project MP: _____ End Project MP: _____
Full Federal Oversight: No ☒ Yes ☐ Note: If Yes, submit to FHWA Director.

A justification and all supporting documents must be attached to this document.
Mark the appropriate certification:

"I, Ryan Kirsch, Project Manager, of the Lee County DOT - Traffic,
Print Name of Initiator Position Title Name of Agency

do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2),
Mark appropriately (choose only one option):

- ☒ that this patented or proprietary item is essential for synchronization with existing highway facilities.
☐ that no equally suitable alternative exists for this patented or proprietary item."

_____, 5/26/2023
Signature Date

For Department Use Only

"I, _____,
Print Name Position Title

of the Florida Department of Transportation, do hereby approve this certification request made in accordance with the
requirements of 23 CFR 635.411(a)(2),
Mark appropriately (choose only one option):

- ☐ that this patented or proprietary item is essential for synchronization with existing highway facilities.
☐ that no equally suitable alternative exists for this patented or proprietary item."

Identify any conditions and limitations:

_____, _____
Signature Date



Board of County Commissioners

Kevin Ruane
District One

May 26, 2023

Cecil L. Pendergrass
District Two

Ray Sandelli
District Three

Brian Hamman
District Four

Mike Greenwell
District Five

Roger Desjarlais
County Manager

Richard Wm. Wesch
County Attorney

Donna Marie Collins
County Hearing
Examiner

Mr. Kevin S. Ingle, P.E.
FDOT District 1 Design Engineer
Florida Department of Transportation District 1
Lee County, Florida

Re: Proprietary Product Certification
Project Name: HURRICANE IAN - PERMANENT TRAFFIC SIGNAL REPAIRS
Financial ID: TBD

Dear Mr. Kevin S. Ingle, P.E.:

In accordance with 23 CFR 635.411(a)(2), this letter shall serve as certification for the various proprietary project specific components and/or products to be used in concurrence with the TBD - Hurricane Ian - Permanent Traffic Signal Repairs project.

Lee County Department of Transportation (LCDOT) in maintaining our traffic signal system has standardized various components for use at traffic signals throughout Lee County. Lee County has agreements with FDOT, City of Cape Coral, City of Fort Myers, and Florida Gulf Coast University to provide maintenance and operation of signals on non-county-maintained facilities.

The sole use of these products has been determined to be necessary to maintain the reliability, integrity, and/or compatibility. It should be noted that the LCDOT has a fair and open procurement policy and a philosophy that encourages fair and open market competition for the purchase of all services, products and equipment. Therefore, the sole use of proprietary equipment is only sought by LCDOT where approved reliability, interchangeability, and maintenance considerations outweigh the desire for competitive variations in different equipment from vendors.

As requested, the use of the products listed below will provide for a standard uniformity in design throughout the Lee County:

FPID # TBD HURRICANE IAN - PERMANENT TRAFFIC SIGNAL REPAIRS - Proprietary List				
Pay Item No.	APL Certification	Description	Requested Proprietary Product	Description of Project Need
660-4-11 660-4-12	660-015-045	Vehicle Detection System - Video	Iteris Next (Vector NEXT Radar and Camera)	Video Detection
660-4-11 660-4-12	660-015-036	Vehicle Detection System - Video	Gridsmart Technologies GS3, GS-3-CAM	Video Detection
663-1-121 663-1-122	663-001-006	Signal Priority and Preemption System	Global Traffic Technologies Model 764 and Model 3100	Emergency Preemption
670-5-110 670-5-111	671-024-003	Traffic Controller Assembly, NEMA (Controller)	Econolite / Safetran Cobalt Rack Mount	Controller for Traffic Controller Assembly
670-5-110 670-5-111	676-023-005	Traffic Controller Assembly, NEMA (Cabinet)	Econolite - TS-2 - Size 6	Cabinet for Traffic Controller Assembly
670-5-110 670-5-111	678-016-008	Traffic Controller Assembly, NEMA Malfunction Monitor Unit (MMU)	Eberle Design - MMU	MMU for Traffic Controller Assembly
682-1-133	682-002-023	ITS CCTV Camera, Dome Enclosure	Axis (Q6135-LE)	CCTV Camera
684-1-1	684-002-037	Managed Field Ethernet Switch	Cisco Systems (IE2000)	Field Ethernet Switch
685-1-13	685-002-008	Uninterruptible Power Supply, Line Interactive with Cabinet	Transportation Control Systems (TCS) MP2000-ITS	Uninterruptible Power Supply
700-5-21 700-5-22	700-015-024	Internally Illuminated Street Name Signs	Transportation Control Systems (BRITELITE TCSSIGNBL SERIES)	Internally Illuminated Street Name Signs
715-5-21 715-5-31 715-11-211	715-005-024	Luminaire	Holophane (MGLEDMD)	Luminaire Fixture

Thank you for your time and consideration regarding this matter. If you have any questions, please feel free to contact me.

Sincerely,

Ryan Kirsch

Ryan Kirsch
Project Manager
Lee County Department of Transportation

Enclosure:
Proprietary Product Certification

Cc:
Zoe Giannopoulos Prieto - FDOT
Thomasina Gay - FDOT
Robert L Price, P.E. - LCDOT
Jillian Scholler, P.E. - LCDOT
Michael Padgett - LCDOT
Eileen Webster - LCDOT
Brooke Green - LCDOT



Search Results : "660-015-045"



- NEXT-CCU-SM4-TS2, P/N: 4020540-02 – has two processor boards that process the video of four cameras
- NEXT-CCU-SM2-TS2, P/N: 4020540-01 – has one processor board that process the video of two cameras



NEXT Camera



Vector NEXT
(Radar and Camera)

Iteris statement: A yellow label is used in Manufacturing because visually the NEXT-CCU-SM2-TS2 and NEXT-CCU-SM4-TS2 are identical, we use the yellow label to show it is a 1DVP (Dual Video Processor) system. The yellow label helps us not confuse the products during manufacturing or shipping.

Vantage NEXT Shelf Mount TS2 (APL Product)

by Iteris, Inc. (Manufacturer Website)

Model: NEXT-CCU-SM2-TS2 or NEXT-CCU-SM4-TS2

APL Certification

- 660-015-045 (Approval Date: 11/3/2020) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Vehicle Detector - Video

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- Evaluated with firmware 09.02.23, one internal Dual Video Processor (DVP), Vantage NEXT Camera, Vantage NEXT Vector
- 7/21/22: Evaluated with firmware 09.02.23SP2, Vantage NEXT Camera, Vantage NEXT Vector, an internal Dual Video Processor (DVP) with a Southern Tier Technologies-T1-HVCP48-4X, ASCO HVCP-48-RJ45 and ASCO SRS-BIU-15 surge protection devices and Pelco SH-0557 bracket

Manufacturer Detail

Iteris, Inc.
1700 Carnegie Ave
Suite 100
Santa Ana CA 92705-5551
949-295-5775

[Contacts](#)[Report Product Deficiency](#)**Other products in product type Vehicle Detector - Video**



Vantage Vector® with Vantage Next®

An all-in-one hybrid detection for stop bar and advance detection



Lane-by-lane functionality for smart intersection data



The ideal solution for adaptive traffic control systems



A cost-effective and easy-to-install sensor – no more cutting loops or pulling extra cables

Advanced performance in a single sensor

Vantage Vector® paired with Vantage Next® is a one-of-a-kind detection solution that provides state-of-the-art video and advanced 4D, high-definition (HD) radar capabilities for maximum intersection safety and performance. This powerful detection solution enables multiple applications, including advanced dilemma zone and collision avoidance functionality, and use with adaptive traffic control systems. The system's improved zone logic and phase input control, and expanded data set are a game-changer.

Together with the Vantage Next system, Vantage Vector provides advanced individual lane detection, delivering even more precise traffic data. The 16 radar zones are easily configurable and programmable to any of the seven zone

types, including: presence, delay, extension, count, pulse, CSO and none. In addition, the radar zones can be combined with 32 video zones to provide a robust data set for advanced intelligent transportation system (ITS) applications, such as long-left-turn pockets and queue detection, making it the ideal solution for all traffic management needs.

Traffic adaptive and responsive

When used with adaptive traffic control systems, the Vector with Next solution improves efficiency and responsiveness by providing accurate detection data to feed into virtually any platform. The Iteris system is fully compatible with Iteris' VantageLive!® and ClearGuide SPM™ software solutions, as well as other third-party web and mobile-based traffic measurement applications.

iteris®

More Benefits

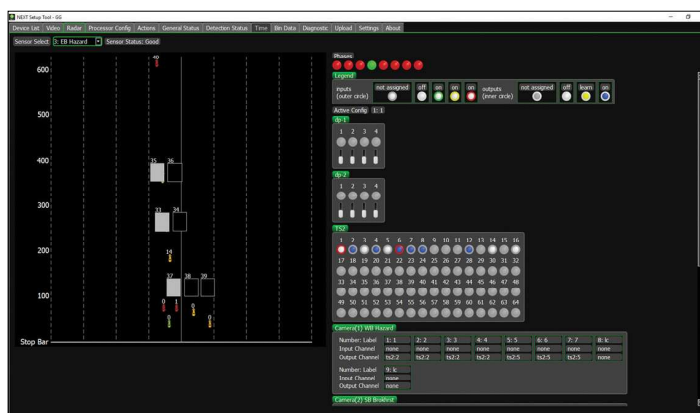
- Fully compatible with Iteris' ClearGuide SPM and VantageLive! software for more detailed and accurate traffic data
- Includes SmartCycle® and PedTrax® for bicycle and pedestrian detection and counting
- Vehicle detection up to 600 feet
- Color-coded zones for effortless viewing of phase activity
- Choose from a rack-mount or shelf-mount cabinet control units



Specifications

Imager	Focal Length 4.5° tele to 48° wide
	Dynamic Range > 100dB
	Luminance Range 0.003 lux to 10,000 lux
	3D-DNR Noise Reduction
Lens	12x Optical Zoom
Heater	Indium Tin Oxide
Connections	Terminal Block
	RJ-45
	cat5e
Radar	
Frequency	24GHz (K-band)
Accuracy	Speed 0 to 150mph ±1mph (0 to 240kph ±1.5kph)
Detection	1 to 6 vehicle lanes
Tracked Objects	64 max
Weight	10 Pounds (4.55kg)

Environment	
Temperature	-35°F to +165°F (-34°C to +74°C)
Electrical	48VDC 10W(Typical) 20W(Max)
Physical	17" (432mm) D x 15" (381mm) W x 14" (356mm) H
	Excluding Mounting Bracket
Weight	10 Pounds (4.55kg)
Environment	
Temperature	-35°F to +165°F (-34°C to +74°C)
Humidity	0% to 95% non-condensing
Vibration	0.5G, 3 axes, 5-30Hz
Shock	10G in all 3 axes
Ingress Protection	IP 67
Regulatory	NEMA TS-2
	FCC part 15, Class A
Warranty	3 years limited warranty



Vector on Next – Radar Zone Operation



Next Video Stream Displaying Video and Radar Operation



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NOTICE: Iteris, Inc. reserves the right to change product specifications without notice. Information furnished is for informational purposes only. This information may not be complete or the latest revision. For the most up-to-date information, please contact Iteris, Inc.



Vantage Next® Shelf-Mount Platform

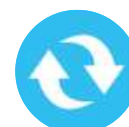
The next generation of an
integrated detection system



Integrated multi-feature control cabinet
system for simple installation



Sending high-resolution streaming video
to a traffic management center



No processors required; fast and
easy cabinet installation

State-of-the-art platform

Vantage Next® is Iteris' next generation video detection platform that capitalizes on the latest technology. Vantage Next uses a powerful processor that enables future functional growth while maintaining proven Iteris video detection performance and reliability. The architecture supports expanding ITS applications and easily integrates with existing and future technologies.

Easy setup and Configuration

With a user-friendly configuration software and fewer components, the Vantage Next platform sets the bar for simple installation and ease of use.

Benefits

- Easy to install, configure and maintain
- CAT5 cable connections
- Simple and convenient access
- Flexible and scalable

Surge Panels and Extenders



Specifications

NEMA SHELF MOUNT CCU

Power	48VDC @ 120W
External Power Supply	DIN Rail 110-240VAC
Dimensions	4" L x 10.5" D x 10.5" H (102mm L x 267mm D x 267mm H)
Weight	6lbs (2.72kgs)
Configurations	TS2; 2 cam or 4 cam, no video processors required
Communications	Ethernet
	USB Type A (x2)
	Wi-Fi
	SDLC communications

GENERAL

Op. Temperature	-35°F to +165°F (-34°C to +74°C)
Humidity	0% to 95% non-condensing
Vibration	0.5G, 3 axes, 5-30Hz
Shock	10G in all 3 axes
Regulatory	NEMA TS-2 compliant
	FCC part 15, Class A
Warranty	3 years limited warranty

Vantage Next Viewer and Next Setup Tool



Windows is a registered trademark of Microsoft.
iOS is a registered trademark of Apple.



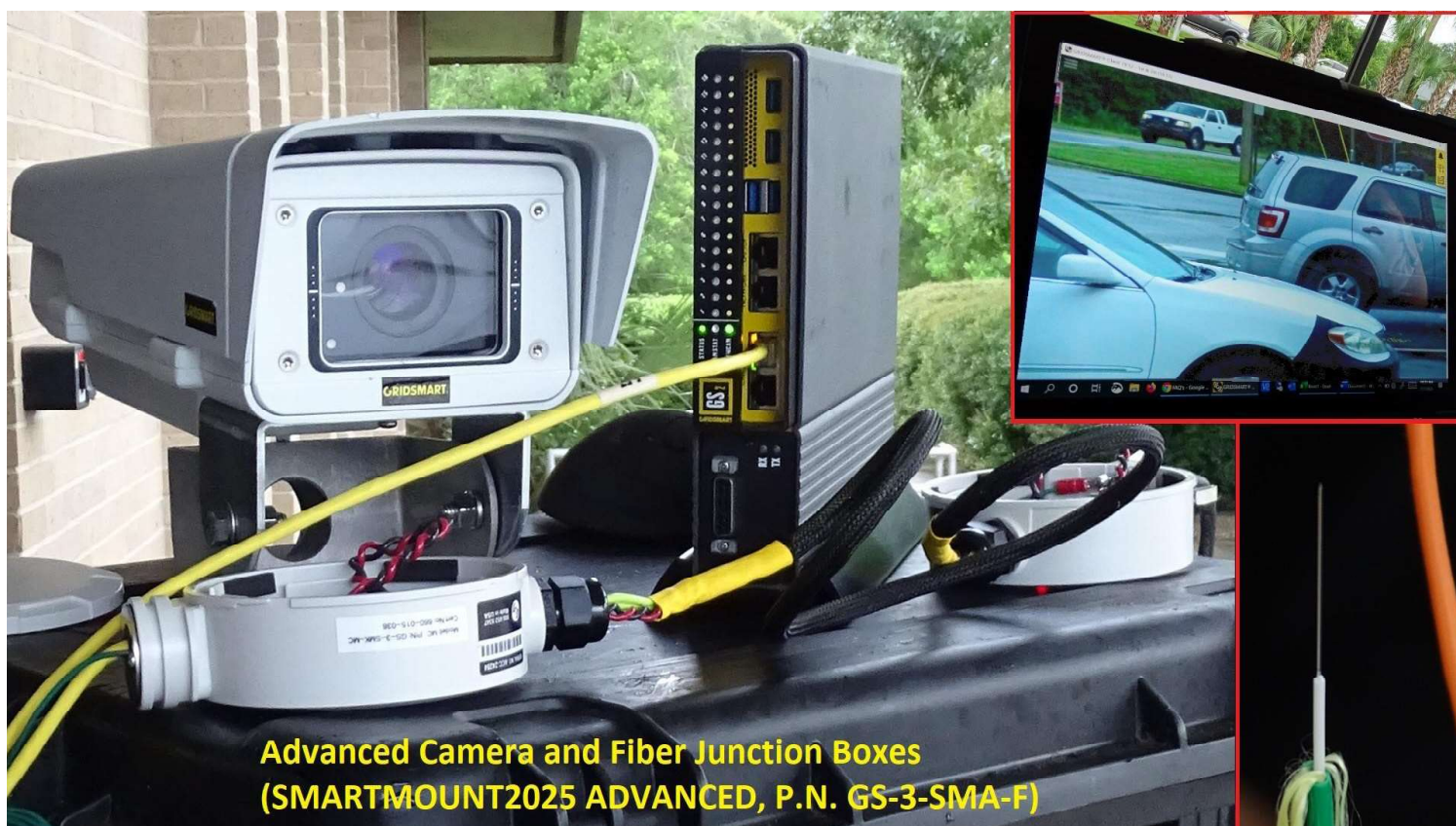
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NOTICE: Iteris, Inc. reserves the right to change product specifications without notice. Information furnished is for informational purposes only. This information may not be complete or the latest revision. For the most up-to-date information, please contact Iteris, Inc.



Search Results : "660-015-036"





GRIDSMART Technologies, Vehicle Detector - Video, GS Series (APL Product)

by Cubic ITS, Inc. (Gridsmart) (Manufacturer Website)

Model: GS Series

APL Certification

- 660-015-036 (Approval Date: 10/20/2016) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Vehicle Detector - Video

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

- N/A

Documents

There are no items to display.

Comments

- Reviewed with firmware version: 01.26.2016, GS-3-CAM Fisheye Camera and two Terminal Strip (GS-3-SMC2) Junction boxes || Reviewed with firmware version: 08.26.2018, GS-3-SMK (GS-3-CAM fisheye Camera, GS-3-SMP Pole assembly, GS1640-103 Junction Box, GS1640-102.
- Re-evaluated with firmware version v19.12, Advanced Camera and Fiber Junction Boxes (SMARTMOUNT2025 ADVANCED, P.N. GS-3-SMA-F) on 11/2/2020
- GS3 Processor firmware 22.3 evaluated with stop bar camera GS-3-SMS, and Fisheye Camera GS-3-CAM.
- Re-evaluated on 12/21/2022 with GS-JUN2 Junction box.

Manufacturer Detail

Cubic ITS, Inc. (Gridsmart)
10545 Hardin Valley Rd.
Knoxville TN 37932
865-482-2112

Contacts

Report Product Deficiency

Other products in product type Vehicle Detector - Video

SMARTMOUNT2025

Part Number: GS-3-SMK-F



SMARTMOUNT2025 delivers the industry’s first fiber optic solution, upgrading traditional SMARTMOUNT with a fiber optic connection between the Bell Camera and GS2 Processor. SMARTMOUNT2025 allows for a greater range than traditional Power over Ethernet (PoE) methods, offering more than 2,000 feet of cable without the need for a repeater. Fiber optic lines are virtually impervious to electromagnetic interference (EMI) and deliver flawless communication performance.

SMARTMOUNT2025 includes the iconic Bell Camera, GRIDSMART custom modular pole assembly, SMARTMOUNT Bracket, and two (2) PoE Fiber Media Converters. The pole assembly has been independently tested for wind speeds up to 150 mph. All SMARTMOUNT2025 installations require both a GRIDSMART FAE onsite to assist and must be done with the GRIDSMART FASTConnect Universal Toolkit or your GRIDSMART Warranty will be voided. The FASTConnect Universal Toolkit provides industry leading tools for simple and proper fiber termination.

SPECIFICATIONS

BELL CAMERA

Connectivity: M12
Dimensions: 9.4" x 7.95" (23.88 x 20.19 cm)
Weight: 5.6 lbs (2.54 kg)
Cable Length: 13.55' (4.13 m) for SMARTMOUNT Pole only

POLE

Dimensions: 7' extension (2.1 m)
3' elbow (0.91 m)
Weight: 13.3 lbs (6.03 kg)
(13 lbs pipe, 0.3 lbs aluminum pipe connector)
Material: 1.5" (3.81 cm) schedule 40 aluminum pipe - 6063-T52

PoE FIBER MEDIA CONVERTERS

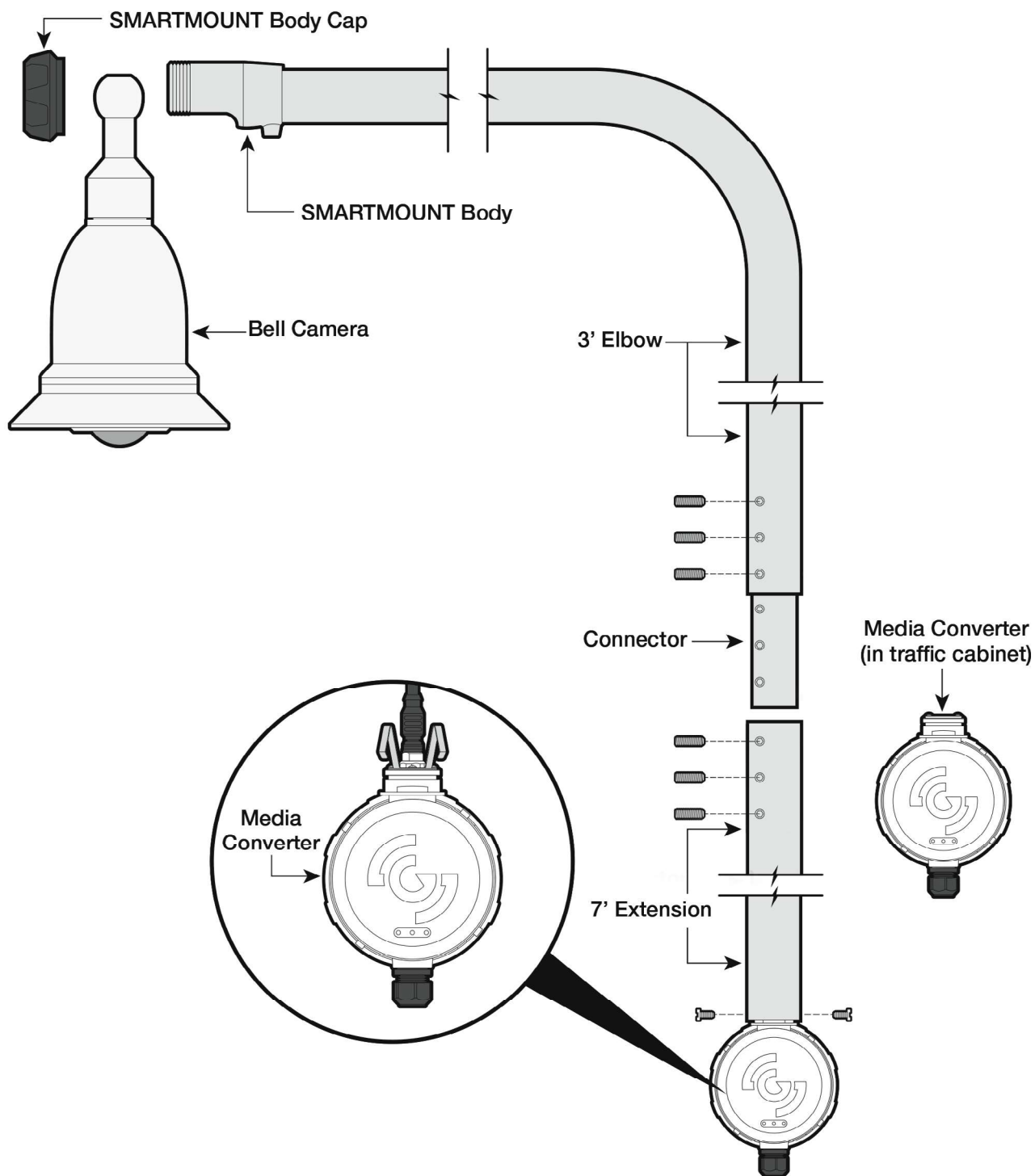
Connectivity: M12 (to Camera)
RJ-45 CAT5e (to Processor)
Dimensions: 5.1" x 8.0" x 1.9" (12.95 x 20.32 x 4.82 cm)
Weight: 0.7 lbs (0.32 kg)
Material: Polycarbonate/ASA blend
UV Stabilized
Environmental: -29° F to 165° F (-34° C to 74° C)
Rated: IP66

MOUNTING KIT

Weight: 2.75 lbs (1.25 kg)
(2 lbs camera mounting hardware and screws, 0.75 lbs cable)
Wind Tunnel Tested: >150 mph

SMARTMOUNT2025 OVERVIEW

Part Number: GS-3-SMK-F



SMARTMOUNT BELL

Part Number: GS-3-SMK



SMARTMOUNT Bell standardizes installations, providing even better results from the world's most accurate intersection solution. SMARTMOUNT Bell's hitch-ball inspired design gives you Flexibility to level your iconic Bell Camera in any terrain with ease. The Junction Box is self-grounding and aesthetically pleasing; the custom pole conveniently ships in two pieces and a quick assembly delivers ideal height. The CAT5e is premeasured for a perfect fit with preinstalled M-12, military grade connections between the Bell Camera and Junction Box.

SMARTMOUNT Bell includes the Bell Camera, Junction Box, GRIDSMART custom modular pole assembly, SMARTMOUNT Bracket and Electronic Protection Module (EPM). The pole assembly has been independently tested for wind speeds up to 150 mph.

SPECIFICATIONS

BELL CAMERA

Connectivity: M12
Dimensions: 9.4" x 7.95" (23.88 x 20.19 cm)
Weight: 5.6 lbs (2.54 kg)
Cable Length: 162.6" (413 cm) for SMARTMOUNT Pole only

POLE ASSEMBLY

Dimensions: 7' extension (2.1 m)
3' elbow (0.91 m)
Weight: 13.3 lbs (6.03 kg)
(13 lbs pipe, 0.3 lbs aluminum pipe connector)
Material: 1.5" (3.81 cm) schedule 40 aluminum pipe - 6063-T52

JUNCTION BOX

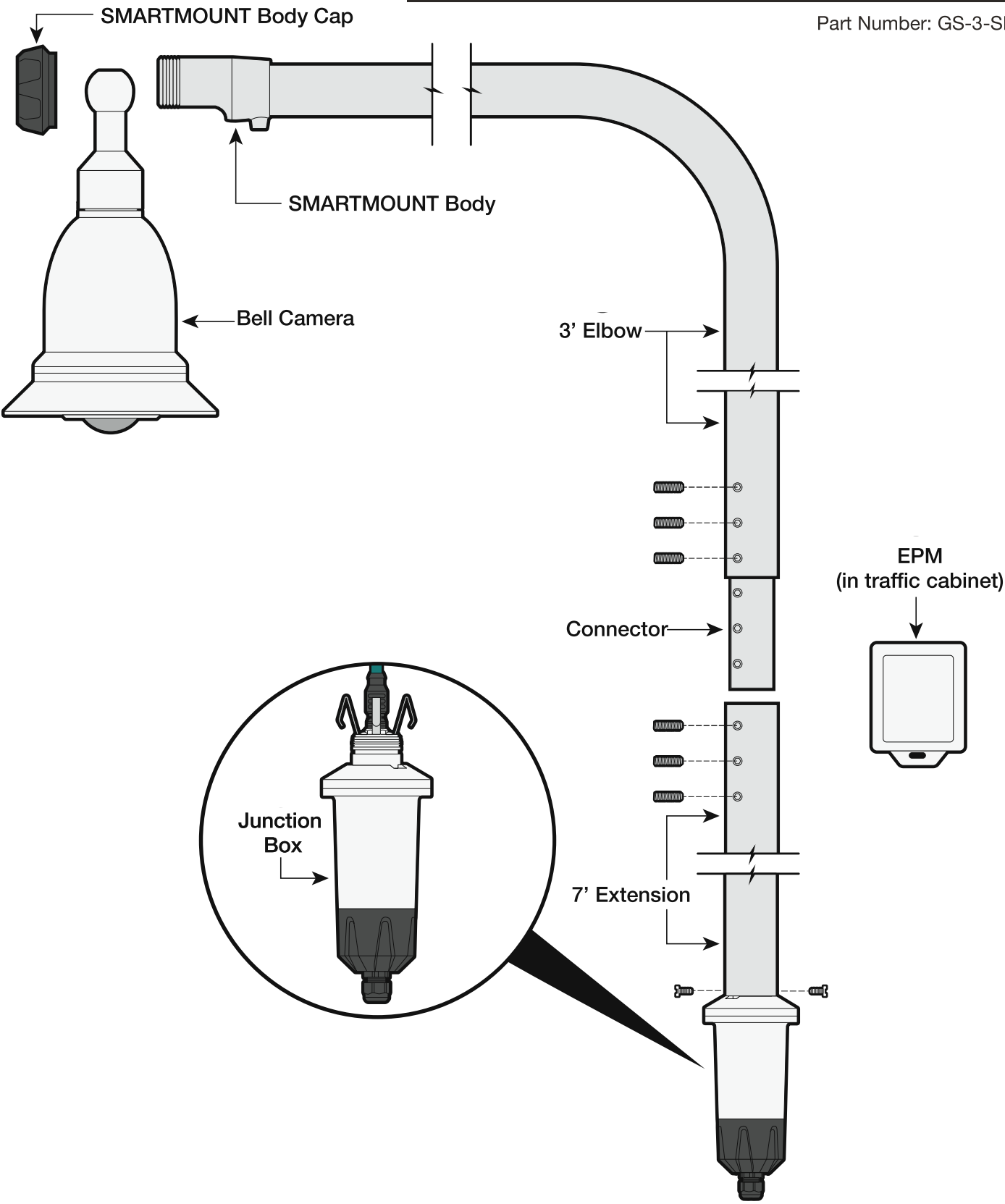
Connectivity: M12 (to Camera)
RJ-45 CAT5e (to Processor)
Dimensions: 9.5" x 3.5" x 3.5" (24.13 x 8.89 x 8.89 cm)
Weight: 0.7 lbs (0.32 kg)
ABA Material: Polycarbonate/ASA blend,
UV Stabilized
Environmental: -29° F to 165° F (-34° C to 74° C)
Rated: IP67

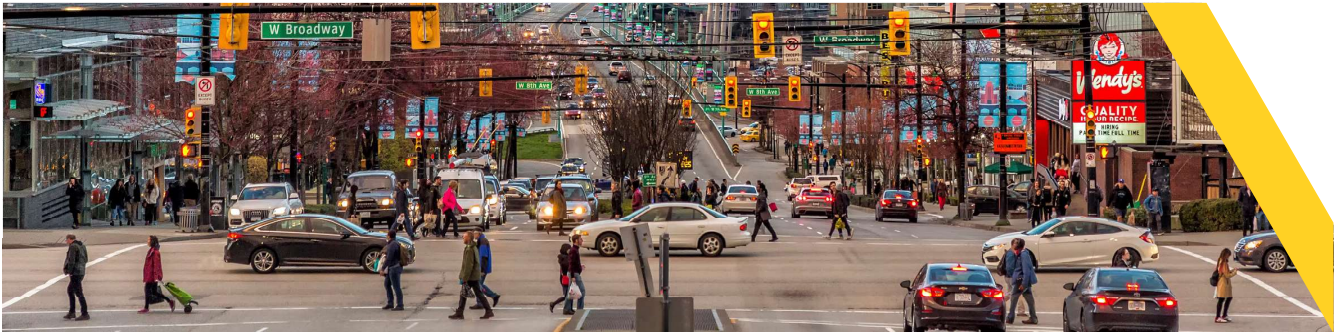
MOUNTING KIT

Weight: 2.75 lbs (1.25 kg)
(2 lbs camera mounting hardware and screws, 0.75 lbs cable)
Wind Tunnel Tested: >150 mph

SMARTMOUNT BELL OVERVIEW

Part Number: GS-3-SMK





GS3 PROCESSOR

PART #: GS3-SYS

The GS3 Processor powers GRIDSMART's iconic bell cameras and computer vision engine to detect, track, and classify objects and deliver accurate detection, actuation and analytics.

The GS3 can be shelf-mounted, horizontally or vertically, or rack-mounted for your convenience. It is housed in rugged, anodized aluminum with detector I/O and connectivity options to support your current and future needs.



FRONT



BACK

SPECIFICATIONS

DETECTOR I/O

TS1, TS2, 170/2070, or ATC/ITS interface

CONNECTIVITY

1x USB 3.0; 1x Wide Area Network (WAN);
1x Ethernet (10/100/1000Mbps); 4x Ethernet
(10/100/1000Mbps) Passive POE; LTE Modem

DIMENSIONS

8.5" x 12.5" x 3.5"; (21.6 x 31.8 x 8.9 cm)

WEIGHT

14 lbs (6.4 kg)

ENVIRONMENTAL

NEMA TS2; -29°F to 165°F (-34°C to 74°C);
0-95% non-condensing; 5-30Hz Vibration;
10G Shock

POWER

120/240 VAC 50/60 Hz

CONSUMPTION

45W nominal; 215W with active camera heaters

REGULATORY

FCC Class A

VIDEO OUTPUT

MJPEG Color; H.264

OS

Linux



Search Results : "663-001-006"





Global Traffic Technologies, Preemption System, 764 GPS & IR Phase Selector (APL Product)

by Global Traffic Technologies, LLC (Manufacturer Website)

Model: 764 GPS & IR Phase Selector

APL Certification

- 663-001-006 (Approval Date: 1/12/2012) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Preemption System

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form


Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

-  Opticom EVP - GPS (PDF 630 KB)

Download the Adobe Reader

Comments

- Reviewed with Model 768 Auxiliary Interface Panel and Models 3100 and 3101 Radio/GPS Receiver modules on 8-18-2014

Manufacturer Detail

Global Traffic Technologies, LLC
7800 3rd Street North Suite 100
Oakdale MN 55128
6517897302

Report Product Deficiency

Other products in product type Preemption System

OPTICOM™ | GPS Platform

**An advanced, scalable Emergency Vehicle
Preemption solution with unmatched
precision and management capabilities**

DESCRIPTION

Building on over 45 years of best-in-class solutions, the reliable and scalable Opticom GPS platform uses GPS positioning and radio transmission to enable faster and safer on-scene arrivals for emergency responders.

The Opticom GPS platform provides an advanced, dependable Emergency Vehicle Preemption (EVP) solution for departments of any size.

FEATURES

Emergency Vehicle Preemption

Using powerful and precise algorithms, the Opticom GPS-based system provides vehicle-to-intersection communications to enable reliable preemption.

Opticom EVP includes configuration and conditional programming capabilities, and offers multiple modes of communication to address obstruction or range requirements.

Opticom EVP supports distributed variants that use infrared, cellular and/or GPS-enabled intersection infrastructure.

Opticom EVP provides the ability to reduce response times by enabling a request for a green light at signalized intersections.

IntelliGreen for stations

Emergency personnel can preempt signals for one or more directions of traffic when leaving the station from the Opticom IntelliGreen unit. The always-ready system uses precise, secure

radio/GPS signal reliability that delivers faster performance. Control intersections to the left, right or both directions from the three-button base station unit.

Mutual aid cooperation

Nearby departments with Opticom vehicle equipment can be authorized to request preemption from intersections in adjacent regions during mutual aid responses.

Maintainability

When paired with Opticom CMS, software and firmware can be updated automatically or on-demand remotely, whenever vehicles are connected via Wi-Fi or a cellular modem.

Multimode operation

Multimode technology allows complete interoperability between IR and GPS components. When authorized, emergency responders with different Opticom technologies can seamlessly activate systems in adjacent regions.

Multimode technology allows departments to:

- migrate call and configuration history for analysis and reporting
- implement a full GPS solution while maintaining EVP and transit priority via IR communications

Built to expand

The Opticom GPS platform can be scaled from solving one problem corridor to outfitting an entire fleet and response area.



The Opticom GPS Platform allows emergency responders to get on the scene safer and faster by preempting traffic signals.

About GTT

Global Traffic Technologies, LLC

(GTT) is the manufacturer of

Opticom priority control systems and

Canoga™ traffic sensing systems.

SOLUTIONS FOR:



Fire



EMS



Law Enforcement



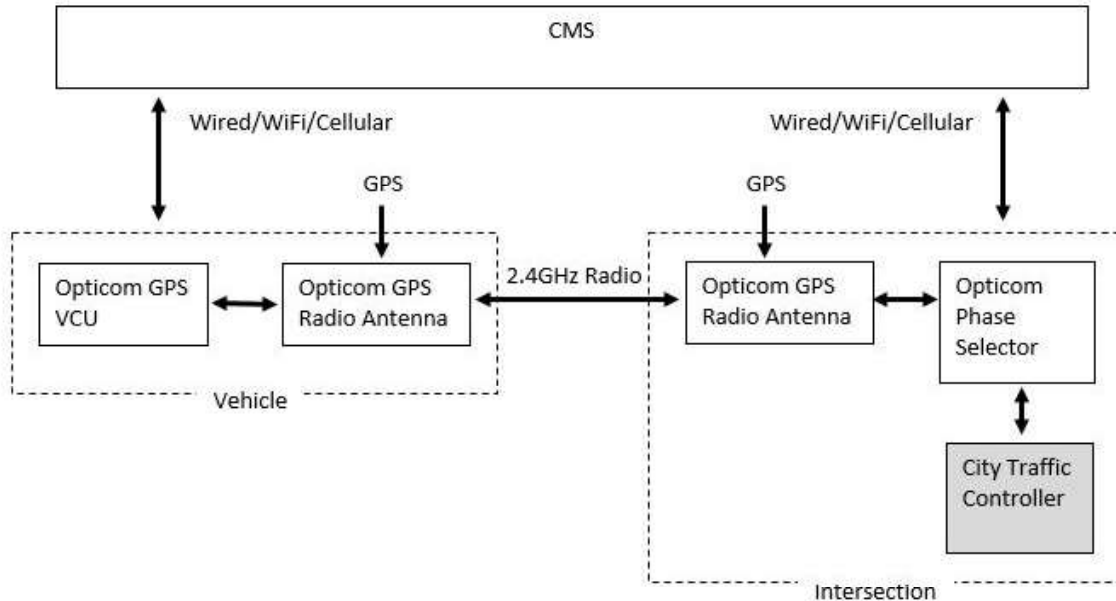
GLOBAL TRAFFIC TECHNOLOGIES

79-1000-1508-0

TYPICAL ARCHITECTURES

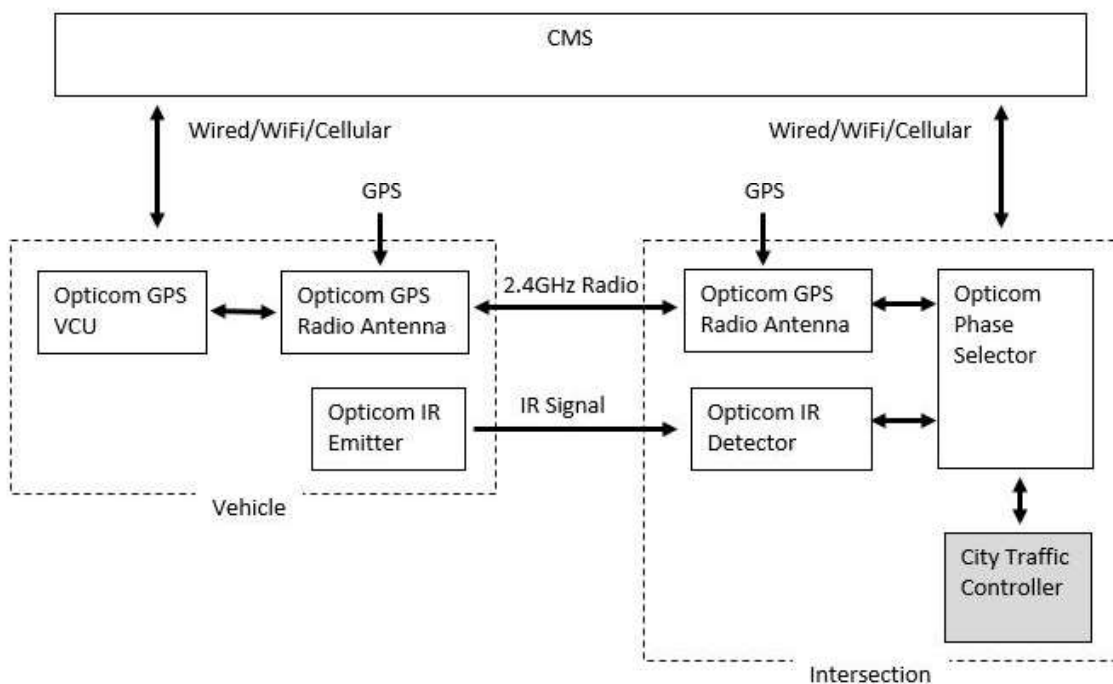
GPS system

Using Department of Defense satellites, the Opticom vehicle equipment calculates vehicle speed, heading and location. Opticom intersection equipment is programmed with an approach map to define corridors of priority control activity. As an Opticom GPS Platform-equipped vehicle enters the radio range of the intersection, the vehicle's speed, heading and position information is transmitted to the intersection receiver. The preemption request is sent to the Opticom phase selector in the intersection controller cabinet where the green light is altered as needed.



Multimode (IR and GPS) system

In a multimode system with IR and GPS components, the Opticom Vehicle Control Unit (VCU) sends a signal to the Opticom GPS radio antenna or IR emitter, which then transmits the preemption request via 2.4GHz radio or infrared light to the Opticom intersection receiver/detector. The receiver communicates with the Opticom phase selector in order to change the traffic light.



COMPONENTS

Intersection components

Model	Description	Product Number
764	Multimode phase selector	76-1000-1054-0
7614	Multimode phase selector-cellular	76-1000-1286-0
768	Multimode auxiliary interface panel	76-1000-1059-0
3100	Opticom GPS intersection radio unit	76-1000-1189-0
721	Detector, single channel, two directions (required for multimode operation)	78-8095-3853-7
1070	GPS installation cable	78-8125-0421-1
1060	GPS IntelliGreen control unit	76-1000-1062-0
138	IR detector cable (required for multimode operation)	78-8009-6556-4

Vehicle components

Model	Description	Product Number
1050	GPS / radio antenna	78-8118-6907-8
2100	High-priority radio/GPS control unit	76-1000-1150-0
792HM	Multimode strobe emitter, high priority, multimode only	76-1000-1149-0
794HM	Multimode emitter, high priority, multimode only	76-1000-1135-0

Management components

Model	Description	Product Number
CMS	Central Management Software	76-1000-1305-0

MANAGEMENT AND SERVICES

Managed Services

Managed services are the services needed to keep the system up and running to achieve optimal performance. Services include:

- Hosting
- Remote monitoring
- Performance tuning
- Updates and upgrades
- Repairs and replacements
- Reporting
- Help desk support

Services are provided by GTT's client services organization.

Central Management Software

Opticom CMS provides real-time data, so traffic engineers can retrieve activity logs, diagnose maintenance issues, upgrade firmware and troubleshoot equipment. It reduces operating costs, improves workflow and results in fewer technician trips to the field.

Warranty

From design, to manufacturing, to service and repair, every effort is made to deliver solutions that far exceed the warranty period. For complete warranty information visit www.gtt.com.

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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 764 Phase Selector

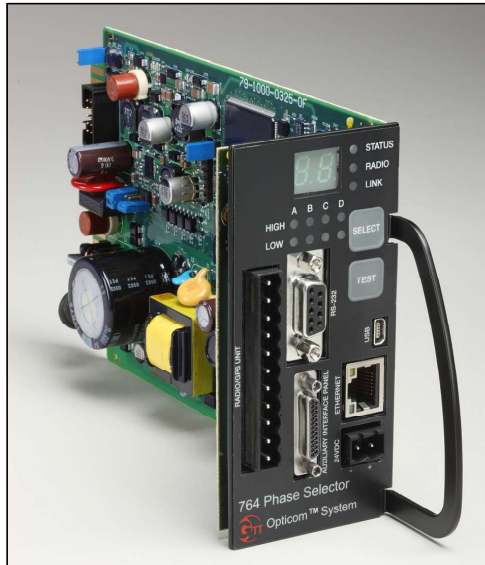
DESCRIPTION

The Opticom 764 Multimode Phase Selector is a plug-in, four-channel, dual-priority, multimode encoded signal device designed for use with both Opticom infrared system (IR) emitters and detectors and Opticom GPS radio/GPS intersection units and vehicle equipment. It can be installed directly into the input files of Type 170 traffic controllers equipped with priority phase selection software and in virtually any other traffic controller equipped with priority phase selection inputs and related software. Phase selectors are powered from AC mains or 24 VDC and contain their own internal power supply to support Opticom IR detectors and Opticom GPS radio/GPS units.

The Opticom 764 Multimode Phase Selector may be used in IR only applications, GPS only applications, or IR and GPS applications simultaneously.

The Opticom 760 Card Rack is required when input file space is not available. When used in GPS only mode, the Opticom 1040 Card Rack may also be used.

Opticom 764 Multimode Phase Selector recognizes and discriminates among three distinct Opticom IR emitter frequency rates via Opticom detectors: high priority, low priority and probe priority. Within each of these three frequency rates, the phase selectors further discriminate among 10 classes of vehicle identification codes, with 1,000 individual vehicle codes per class — 10,000 total per frequency rate. The Opticom 764 Multimode Phase Selector also recognizes three different priority levels transmitted by Opticom GPS vehicle equipment: high priority, low priority and probe priority. Within each of these three priority levels, the phase selectors further discriminate among 254 agency IDs, 15 classes of vehicle identification codes, with 10,000 individual vehicle codes per class — for more than 38 million total per priority level.



Opticom 764 Multimode Phase Selector internally records each system activation. Each entry contains:

- Intersection name
- Date and time of the activity
- Vehicle class code of the activating vehicle
- Activating vehicle's ID number
- Agency ID (GPS only)
- Channel called
- Priority of the activity
- Final green signal indications displayed at the end of the call
- Time spent in the final greens
- Duration of the activation
- If preempt has been requested and reason if not
- Turn signal status at the end of the call (GPS only)
- Entry, exit and average speed (GPS only)
- Relative priority level
- Conditional priority level



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 764 Phase Selector

FEATURES

IR only operation, GPS only operation, or simultaneous IR and GPS operation

- Four channels of detection
- Two auxiliary detectors per channel (IR)
- Records green signal displayed at end of preemption
- Compatible with encoded signal and non-encoded signal Opticom IR Emitters
- High and low priority as well as probe frequency discrimination
- Conditional priority for Transit Signal Priority (TSP) (when used with compatible AVL and/or passenger counter)
- "First-come, first-served" priority within each priority level
- Priority-by-class setting via the interface software
- Priority-by-direction setting via the interface software
- Direct installation into CA/NY Type 170 input files
- Automatic range setting using an encoded emitter (IR)
- Call bridging for both IR and GPS calls including mixed mode
- Low-priority output may be configured for first-come, first-served or all-channel active
- User-adjustable range setting up to 2,500 feet of operation
- Compatible with most traffic controllers
- 10/100Mb Ethernet communication on the front panel
- USB 2.0 communication on the front panel
- RS232 communications front port, and rear backplane and Auxiliary Interface Panel
- User-selected communications baud rate of 1,200 to 230,400 bits per second
- Customizable ID code validation

- Flexible programming options for priority control parameters
- Detailed current Opticom System parameter information
- History log of most recent Opticom infrared and GPS system activities (10,000 entries)
- 30,000 frequency/class/vehicle code ID combinations (IR)
- More than 38 million agency/class/vehicle code combinations (GPS)
- Front panel switches and diagnostic indicators for testing
- Accurate infrared signal recognition circuitry
- Precise output pulse
- Definitive call verification
- Regulated detector power supply (IR)
- Optically isolated outputs
- Two character display and keypad to enable diagnostics and test calls to each channel
- Display LED Indicators
 - High- and low-priority test calls
 - Reset to default parameters
 - Range setting
- User-settable range setting by ETA and/or distance (GPS only)
- Varied outputs depending on turn signal status of requesting vehicle (GPS only)
- IR detector inputs may be mapped to any channel
- Diagnostic test
- Advanced built-in diagnostics and testing
- Tested to NEMA environmental and electrical test specifications

ACCESSORIES

Opticom On-site Interface software package

- Opticom 768 Auxiliary Interface Panel
- Opticom 755 Four-Channel Adapter Card (optional)
- Opticom 760 Card Rack

OPERATING PARAMETERS

Four dual-priority and probe frequency channels

- "First-come, first-served" for vehicles with the same priority level (high or low)
- Priority override: always higher over lower
- Opticom GPS Radio/GPS Unit input
- Opticom Infrared System Detector input(s): one per channel on the card edge connector and two auxiliary per channel through the Opticom 768 Auxiliary Interface Panel
- Optional interface software for flexible programming options and call history
- LED indicators
 - Status
 - Radio (GPS mode)
 - Link (GPS mode)
 - High signal/call per channel
 - Low signal/call per channel
 - Two-digit status display
- Two character display and keypad to enable diagnostics and test calls to each channel
- Voltage: 89 to 135 VAC, 60 Hz at up to 500mA or 24 VDC at up to 1 Amp
- Temperature: -37°C to +74°C (-34.6°F to +165.2°F)
- Humidity: 5% to 95% relative
- CE certified
- NEMA TS-2 compliance
- FCC compliance

PHYSICAL DIMENSIONS

Length: 7.0 in. (17.8 cm) x 8.2 in. (20.8 cm) including handle

Width: 2.3 in. (5.8 cm)

Height: 4.5 in. (11.4 cm)

Weight: 0.60 lbs. (272 g)



OPTICOM™ 768 Auxiliary Interface Panel

DESCRIPTION

Opticom 768 Auxiliary Interface Panel (AIP) provides a convenient method to interconnect Opticom 762 and 764 Phase Selectors with terminals inside a traffic cabinet. The 768 AIP is designed specifically for use with the Opticom 762 and 764 phase selectors. It is not intended to be used with other phase selectors.

The Opticom 768 contains terminal blocks for wiring to the traffic cabinet signals, two DB-9 RS-232 communication ports, and a 44-pin connector for connecting legacy auxiliary interface panels and auxiliary harnesses. A twelve foot cable is included which connects the AIP to the Opticom 762 or 764 Phase Selector.

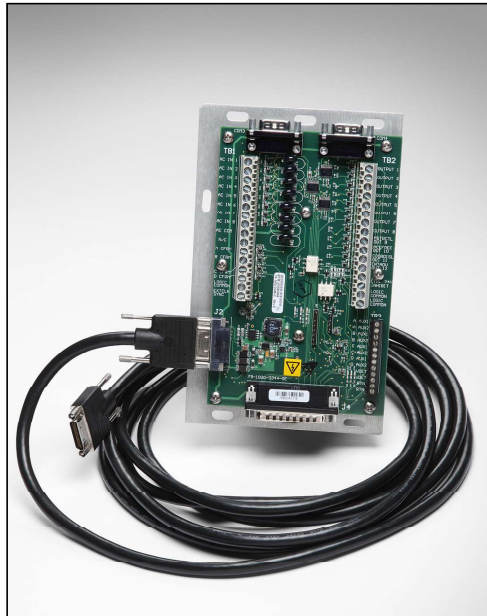
FEATURES

- Accessible interconnections to cabinet wiring along the edge of card
- Rugged construction - circuit card affixed to 16 AWG aluminum mounting plate
- Connectors for auxiliary detector inputs and power can accommodate 16 to 28 AWG wires
- Connectors for all other inputs and outputs can accommodate 16 to 22 AWG wires
- Easy-to-read terminal designations

APPLICATIONS

The Opticom 768 AIP is used when any of the following features and/or capabilities is needed:

- Green sensing or green light verification
- Auxiliary infrared detector inputs
- Additional preempt outputs
 - Turn signal dependent operation (For 764 in GPS operation)
 - Separate outputs for high and low priority
- Clock sync input (In IR operation)
- Clock sync output (For 764 in GPS operation)
- Confirmation light outputs
- Disable outputs
- Two additional RS-232 COM ports
 - GPS data input (In IR operation)
 - GPS data output (For 764 in GPS operation)
 - Additional Serial COM port



The Opticom 768 AIP includes a connector for connecting an existing auxiliary harness or auxiliary interface panel to green sense and/or auxiliary detectors. Simply remove the old AIP or harness and connect it directly to the 768. If the existing harness or AIP is being used for other functions, it will be necessary to move the wires to the 768 AIP.

PHYSICAL DIMENSIONS

Length: 7.25 in. (18.4 cm)

Width: 4.5 in. (11.4 cm)

Height: 1.0 in. (2.5 cm)

Weight (with cable): 1.4 lbs. (635 g)

Cable: 12 ft (3.6M)



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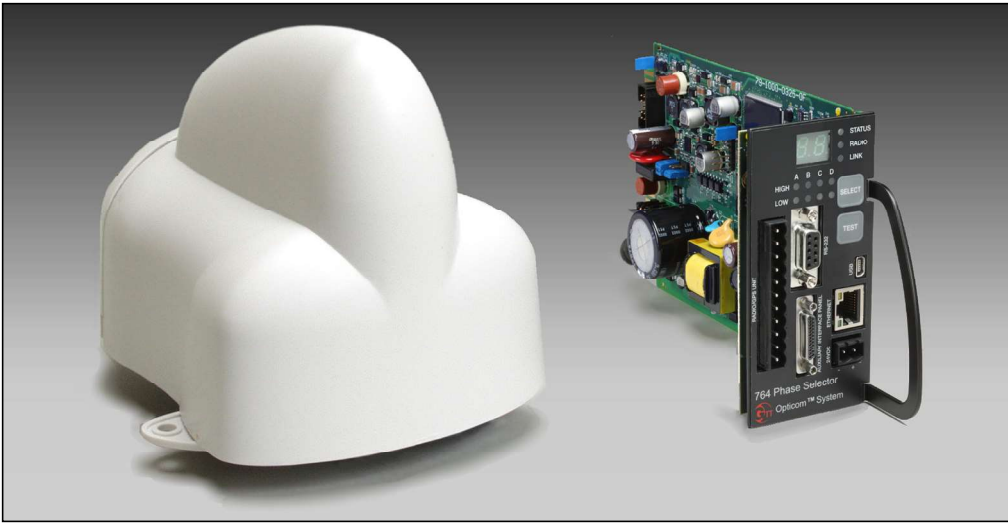
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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ GPS-enabled intersection equipment



DESCRIPTION

The Opticom GPS System assists authorized vehicles through signalized intersections by providing temporary right-of-way through the use of common traffic controller functions.

The Opticom GPS system consists of the following matched components:

Intersection Equipment

- Opticom 3100 GPS Radio Unit containing a GPS receiver with antenna and a 2.4 GHz spread spectrum transceiver with antenna

–OR–

Opticom 3101 GPS Radio Unit containing a GPS receiver and a 2.4 GHz spread spectrum transceiver, with Opticom 1050 GPS/Radio Antenna and Opticom 1072 GPS Cable Assembly

- Opticom 764 Multimode Phase Selector
- Opticom 768 Auxiliary Interface Panel
- Opticom 1040 GPS Card Rack or Opticom Model 760 Card Rack or Opticom Model 770 Card Rack
- Opticom 1070 GPS Installation Cable

Vehicle Equipment

- Opticom 2100 High Priority Radio/GPS Control Unit

–OR–

Opticom 2101 Low Priority Radio/GPS Control Unit

- Opticom 1050 GPS/Radio Antenna
- Opticom 2171 Vehicle Interface Cable

Opticom GPS system intersection equipment consists of the compact, weather resistant RF-energy-emitting Opticom 3100 GPS Radio Unit containing a GPS receiver with antenna and a 2.4 GHz spread spectrum transceiver with antenna.

The radio unit is connected to an Opticom 764 Multimode Phase Selector via an 11-conductor radio/GPS cable.

The Opticom 764 Multimode Phase Selector can be installed directly into a CA/NY Type 33X input file or most NEMA traffic controllers equipped with priority phase selection software, or into virtually any other traffic controller equipped with priority phase selection inputs and related software.

When input file space is not available, an Opticom 760 Card Rack is required. An external 120 VAC power source provides the power that is required to operate the Opticom 764 Multimode Phase Selector. The phase selector provides power to the radio unit.

The Opticom 764 Multimode Phase Selector processes the signal from the Opticom 3100 GPS Radio Unit and activates outputs, which are connected to the preemption inputs on the traffic controller. There are four channel outputs accessible on the rear connector of the Opticom 764 Multimode Phase Selector and up to 12 additional channel outputs on the Opticom 768 Auxiliary Interface Panel.

Each channel output delivers a constant output for high priority activation, and a pulsed output for low-priority activation. A high-priority signal received on a channel will override any low-priority activation.



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ GPS-enabled intersection equipment

In certain modes of operation, outputs may be activated that are dependent on the state of the requesting vehicle's turn signal. Another mode provides separate constant outputs for high priority and low priority. The use of an Opticom 768 Auxiliary Interface Panel is required to access these additional modes and outputs.

FEATURES

- Four channels of detection
- Radio range of 2,500 feet
- User-settable range setting by ETA and/or distance
- Call bridging
- Precise preemption output pulse
- Optically isolated outputs
- Varied outputs depending on turn signal status of requesting vehicle
- High and low priority as well as probe frequency discrimination
- "First-come, first-served" priority within each priority level
- Low-priority output may be configured for first-come, first-served or all-channel active
- Priority-by-class and priority-by direction setting via the interface software
- 10/100Mb Ethernet and USB 2.0 communication on the front panel
- RS232 communications front port, rear backplane and Auxiliary Interface Panel
- History log of most recent Opticom GPS system activities (10,000 entries)
- More than 38 million agency/class/vehicle code combinations

- Customizable ID code validation
- Two character display, LEDs and keypad to enable diagnostics and place test calls to each channel
- Flexible programming options for priority control parameters
- Direct installation into CA/NY Type 33X input files
- Compatible with most traffic controllers
- Tested to NEMA environmental and electrical test specifications
- Meets FCC part 15 Class A specifications

PHYSICAL DIMENSIONS

Opticom 764 Multimode Phase Selector

Length: 7.0 in. (17.8 cm) x 8.2 in. (20.8 cm) including handle

Width: 2.3 in. (5.8 cm)

Height: 4.5 in. (11.4 cm)

Weight: 0.60 lbs. (272 g)

Opticom 3100 GPS Radio Unit

Length: 9.0 in. (22.9 cm)

Width: 6.5 in. (16.5 cm)

Height: 6.0 in. (15.2 cm)

Weight: 1.8 lbs. (0.816 kg)

Opticom 3101 GPS Radio Unit

Length: 8.0 in. (20.3 cm)

Width: 4.5 in. (11.4 cm)

Height: 2.7 in. (6.9 cm)

Weight: 1.7 lbs. (0.771 kg)

Opticom 768 Auxiliary Interface Panel

Length: 7.25 in. (18.4 cm)

Width: 4.5 in. (11.4 cm)

Height: 1.0 in. (2.5 cm)

Weight with cable: 1.4 lbs. (635 g)

Cable: 12 ft (3.6 m)

Opticom 1040 GPS Card Rack/Opticom 760 Card Rack/Opticom 770 Card Rack

Length: 8.25 in. (21.0 cm)

Width: 5.25 in. (13.3 cm)

Height: 5.1 in. (12.9 cm)

Weight: 2.3 lbs. (1.043 kg)

Opticom 1050 GPS/Radio Antenna

Diameter: 2.85 in. (7.2 cm)

Height: 1.4 in. (3.5 cm)

Cable length: 15.0 ft. (4.6 m)

Weight with cables: 0.6 lbs. (0.30 kg)

ELECTRICAL

Opticom 764 Multimode Phase Selector

Voltage: 89 to 135 VAC, 60 Hz at up to 500mA or 24 VDC at up to 1 Amp

ENVIRONMENTAL

Opticom 764 Multimode Phase Selector

Temperature: -37°C to +74°C (-34.6°F to +165.2°F)

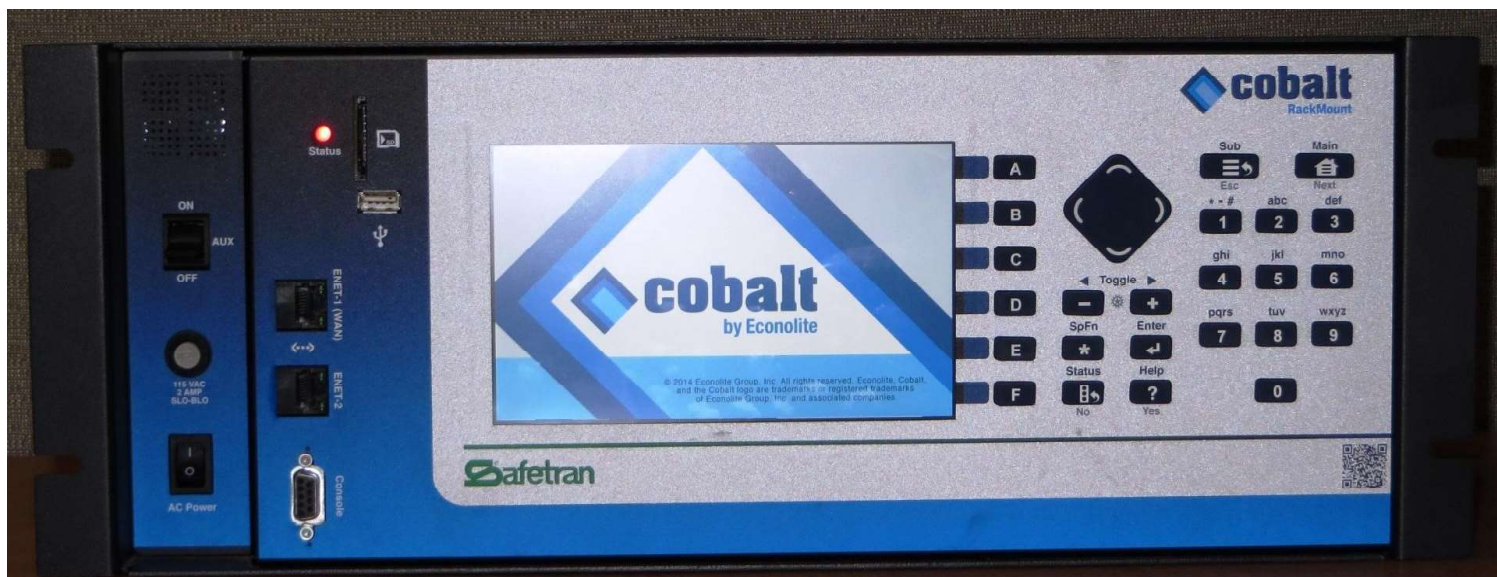
Humidity: 5% to 95% relative





Search Results : "671-024-003"







Econolite, NEMA-170 Controller Unit, Safetran Cobalt-RackMount (APL Product)

by Econolite (Manufacturer Website)

Model: Safetran Cobalt-RackMount

APL Certification

- 671-024-003 (Approval Date: 12/10/2015) (Service Life Expectancy: 1/1/2030)

BABA Eligible: Eligible

Product Types

- NEMA-170 Controller Unit

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- Evaluated with firmware version 32.63.00 Configuration L3000, with Flashing Yellow Arrow Operation
- Evaluated firmware EOS 03.02.07; EBOS 06.15.00 with Flashing Yellow Arrow Operation (FYA) and Leading Pedestrian Interval (LPI) on 1/14/2021.

Manufacturer Detail

Econolite

1250 Tustin Ave

Anaheim CA 92807

904-759-0745

Contacts

Report Product Deficiency

Other products in product type NEMA-170 Controller Unit

Traffic Controllers for Traffic Operations



What, exactly, is the Cobalt Controller?

Cobalt is the next-generation in Advanced Transportation Controller (ATC) specifically designed for the mobile computing environment. Fully meeting ATC standards, Cobalt features a breakthrough hardened seven-inch touchscreen GUI matched with Linux-based OS that makes programming and access to functions the easiest in the industry.

Why do agencies use Cobalt?

Cobalt is designed to support connected and automated vehicle programs. Combined with the Connected Vehicle Co-Processor (CVCP) module, Cobalt fully supports Signal Phase and Timing (SPaT)/MAP data messaging capabilities, providing a fundamental V2I element for connected vehicle applications.

How does Cobalt benefit the driving public?

Helping to ensure safety, the traffic signal controller represents one of the most important intelligent technology and communication components of a signalized intersection. The Cobalt ATC family of controllers are designed to increase safety and traffic signal operations for years to come.





Cobalt RackMount Hardware

Cobalt's RackMount ATC controllers may be configured with Econolite's robust Cobalt Touch application software package, or other pre-qualified ATC/Linux software application software meeting current ATC standards. OS and software upgrades can be made easily by USB memory stick.

Cobalt RackMount controllers include an advanced, Linux-based Engine Board that is compliant with the ATC 6.25 and proposed 6.34 standard provides connectors that support integration into 33x, ITS or NEMA TS2 Type-1 cabinets.: four Ethernet ports, two USB ports, and an SD Card slot. Additionally, Cobalt's seven-inch color, high brightness TFT LCD module with touch screen capabilities is readable in direct sunlight, can be operated with gloved hands, and is not affected by condensation or water drops. Optional cards can be purchased for twisted-pair copper (FSK) or serial (RS232) system interconnect.

Hardware Details

- Caltrans C1/C11 cabinet interface to replace 170 or 2070 controllers in 33X cabinets..
- Synchronous Data Link Communications (SDLC) for hybrid or NEMA standard TS2 Type-1 cabinets.
- Supports Econolite Linux-based software or other prequalified ATC/Linux software
- ATC Engine Board
 - Fully compliant with the ATC Standard version 6.25 and proposed ATC Standard 6.34
 - 266MHz PowerQUICC II Pro-processor that provides 10 times more processing power than our previous generation controller processor
 - 128Mbytes of DDR2 DRAM memory for application and OS program execution
 - 64 Mbytes of FLASH for storage of OS Software and user applications
 - 2MB of SRAM memory for non-volatile parameter storage
- Two Ethernet switches provide additional ports and some level of management for networks ENET1 and ENET2
- Advanced Graphics Controller
 - Enables Cobalt's enhanced graphics user interface
 - Touch screen capability means the keyboard never has to be used
 - Replaces traditional text menu selection with graphical selections
- Two USB 2.0 ports used to:
 - Update application software
 - Upload or download configuration
 - Upload logged data
- Datakey socket for an optional 3.3V Datakey, 8MB
- SD Memory Card socket



- The SD Card stores configuration and logs and provides automatic backup of configuration

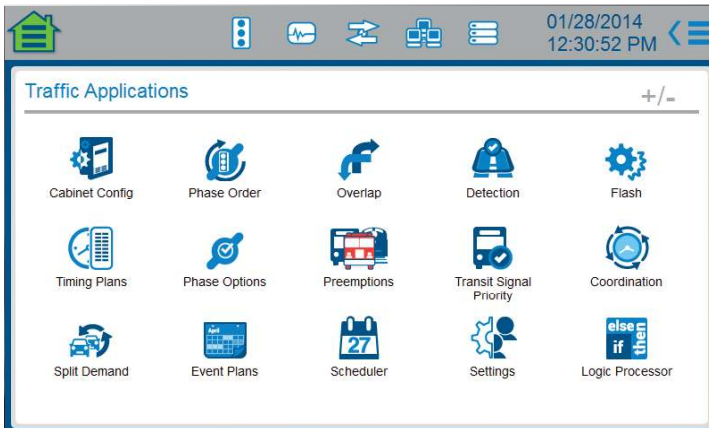
- CPU Active LED
- Built in speaker for enhanced audio controller feedback
- Recessed front panel Aux switch
- Serial Ports
 - Front panel mounted, 9-pin, C50s / Console port
 - Rear panel mounted:
 - 15-Pin NEMA Port 1, SDLC
 - 25-Pin, NEMA, Port 2, Terminal
 - 25-Pin ATC, C12S
 - One slot for optional ATC / 2070 communications module for access to SP1 and SP2
- Parallel Ports
 - Rear panel mounted:
 - C1S
 - C11S
- Power Supply
 - Meets all requirements of ATC standard 6.34
 - Recessed front panel AC power switch
- Operating system
 - Linux 3.12 or later kernel and Board Support Package (BSP)
 - Compliant to ATC Standard 6.25 Annex B specifications

Hardware Options

- Power Connection options:
 - A permanently attached cable and cable wraps for use in 170 or 2070 replacement applications.
 - A NEMA TS2-Type-1, "A", MS connector which facilitates a detachable power cord for use in Econolite Hybrid cabinets.
 - A 220VAC assembly
- Communications module options:
 - FSK Module that can be configured for RS232 operation and use a 9 or 25 pin D connector
 - 2070 TEES 2009 standard 6A, 6B, and 7A plug-in modules
- Optional datakey 3.3V, 8MB



Capabilities



Control Features

- 16 phases, 8 configurable concurrent groups in 4 timing rings
- 16 vehicle overlaps that can be configured as normal, -green/yellow, PPLT/FYA or Econolite
- 16 pedestrian phases that can be configured as pedestrian overlaps
- Exclusive pedestrian operation
- Dynamic max operation
- Extendable walk and pedestrian clearance
- Advanced Walk
- Bike input and green timing
- Adaptive red clearance
- Transit Signal Priority

Coordination Features

- 120 coordination event plans, each with its own cycle, offsets, split timing, coordinated phases, vehicle and pedestrian recall and phase omits
- Offset and split entries displayed in percent or seconds
- Automatic permissive periods
- Fixed or floating force-off
- Crossing arterial coordination
- Quick-sync feature

Preemption Features

- Ten preemption sequences. Each may be configured as priority, first-come-first-serve, or bus preemption operation
- ECPI interlock to provide added monitoring
- Railroad gate-down input and timing.
- Conditional delay when entering preemption
- Multiple exit preemption options

Time Base Features

- 200 schedule programs, configurable for any combination of months, days of the week, and days of the month

- Fixed or floating exception day programs that override the day plan event on a specific day
- 16 day plans that can use any of the 100 event plans

Status Display Features

- Touch selection of detailed dynamic status display for the main controller unit functions including: controller, coordinator, preemptor, time base, detectors, and MMU

Detector Features

- 64 vehicle detectors
- 16 system or speed detectors
- Unique detector types and operation
- Individually assignable to phase and functions
- Lock/non-lock function by detector
- 4 detector plans
- 4 detector diagnostic plans
- Logging of volume and/or occupancy assignable by any or all of the 64 detector
- 4 pedestrian diagnostic plans

Logging Features

- Separate buffers for detector activity, detector failures, controller events, and MMU events
- Logged data can be:
 - Viewed on front panel
 - Retrieved via a RS-232 terminal port, USB
 - Transferred via communications to a traffic management center

Systems

- NTCIP level 2 compliance
- Supports Centracs® and TS2 NTCIP Level 2-compliant pre-qualified central applications

Software Options

- EOS
- ASC/3-LX



Cobalt RM Software

- Software features, plus the following:
 - Full-color graphic interface with touch-screen capability
 - Provides menu selection using touch selections.
 - Programming uses touch data entry allowing touch gestures to select yes/no, select enable/disable, pull-down list selections and more
 - Screen can be swiped to advance to another screen
 - Naming of timing plans, Event plans, Day plans, and Week plans
- Allows for an agency-specific default database
- Automatic backup of controller database to optional Datakey or manual back up to USB flash drive
- Context sensitive help
- 100-statement logic processor to test inputs, outputs or timers and take actions based on the results
- Cobalt Mobile remote tablet interface
- Peer-to-Peer operation is a feature that allows controllers to share information with other controllers, independent of the central system. One controller can communicate with up to 15 other controllers through Ethernet.

Basic Specifications

- Temperature
 - -34.6°F to +165°F (-37°C to +74°C)
- Power
 - 110VAC @ 50/60 HZ or optional 220/240 VAC @ 50/60 HZ
- Fuse protection for either 110 or 220/240V
 - Protection for the 24VDC supply is provided by a resettable electronic fuse
- Dimensions
 - 19" W x 7" H x 11.5" D





Search Results : "676-023-005"





Econolite, Wired Cabinet Assembly TS-2 Size 6, 5381 (APL Product)

by Econolite (Manufacturer Website)

Model: 5381

APL Certification

- 676-023-005 (Approval Date: 12/10/2001) (Service Life Expectancy:)

BABA Eligible: Eligible

Previous APL Numbers

- 67614560803021

Product Types

- Wired Cabinet Assembly TS-2 Size 6

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- PLUG & GO (ECONOLITE)

Manufacturer Detail

Econolite

1250 Tustin Ave

Anaheim CA 92807

904-759-0745

Contacts

Report Product Deficiency

Other products in product type Wired Cabinet Assembly TS-2 Size 6

Cabinets for Traffic Management

Plug-N-Go Cabinets

What, exactly, are cabinets?

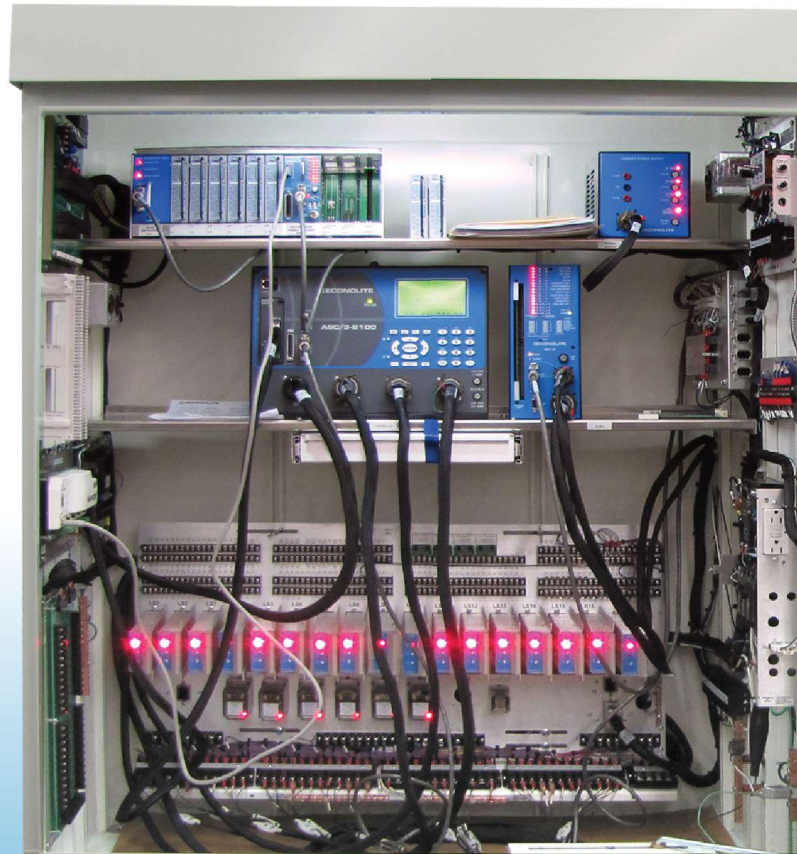
Traffic control cabinets house the brains and intelligence of the signalized intersection. Traffic cabinets also provide the standardized component communications, configuration, and safeguards that ensure safer and more efficient intersections.

Why do agencies use cabinets?

Traffic cabinets are smarter, providing new options for communications, reduced and alternative power sources, and support big data and analytics that will help cities, municipalities, and DOTs meet the traffic management needs well into the future.

How do cabinets benefit the driving public?

Through strict adherence to industry standards and specifications, and utilizing leading-edge component and communications technologies, Econolite's traffic control cabinets ensure the highest levels of intersection safety and traffic management capabilities.





Modular Component Design

The design features of the modular components allow for the standardization of cabinet wiring interconnection.

Enhanced Power Distribution

The Power Bus assembly reduces the chance of wiring errors and problems associated with electrical connections. All cabinet equipment that requires filtered power to operate is connected to the Power Bus assembly with highly reliable Plug-N-Go connectors.

Improved Safety

Utilization of a 24-volt disconnect relay provides additional isolation during flash conditions.

Field Replaceable Modular Components

The modular cabinet components are easily removed or replaced with the use of simple hand tools.

TS2 Type-1 Main Panel Size Reduced

Reducing the size of the TS2 Type-1 main panel eliminates the need for removal of any equipment when lowering the panel.

Interface Cables with Connectors Simplifies Point-to-Point Wiring

Utilizing connectors in lieu of point-to-point manual wiring provides greater flexibility for installation and wiring changes.

Options

- Plug-N-Go TS2 Type-1
- Plug-N-Go TS2 Type-2
- Plug-N-Go Lite TS2 Type-1

Increased Reliability

Connectors utilized in all modular cabinet assemblies have been field-tested in both military and medical applications.

Reduces Maintenance Time

Easily replaceable modular components allow the service technicians to restore the system with minimum downtime.

Simplifies Troubleshooting & Diagnostics

Common cabinet modules provide easy isolation and eliminate the need for extensive troubleshooting and diagnostics.

Available with NEMA TS2 Type-1 and Type-2 Terminals & Facilities

- All modular cabinet components are designed to be used with both TS2 Type-1 and Type-2 main panels.
- Also available with NEMA TS1 is a 16-position horizontal loadbay.



NEMA Traffic Cabinets

NEMA Cabinet Comparison

What, exactly, are cabinets?

Traffic control cabinets house the brains and intelligence of the signalized intersection. Traffic cabinets also provide the standardized component communications, configuration, and safeguards that ensure safer and more efficient intersections. It is also the critical and fundamental infrastructure component for Connected and Automated Vehicles and Smart Cities.

Why do agencies use them?








Traffic cabinets are smarter, providing new options for communications, reduced and alternative power sources, and support big data and analytics that will help cities, municipalities, and DOTs meet the traffic management needs well into the future.

How do they benefit the driving public?

Our traffic cabinets are designed with the agency in mind to meet their traffic management and ITS program needs now and the connected vehicle and smart city objectives of the future.





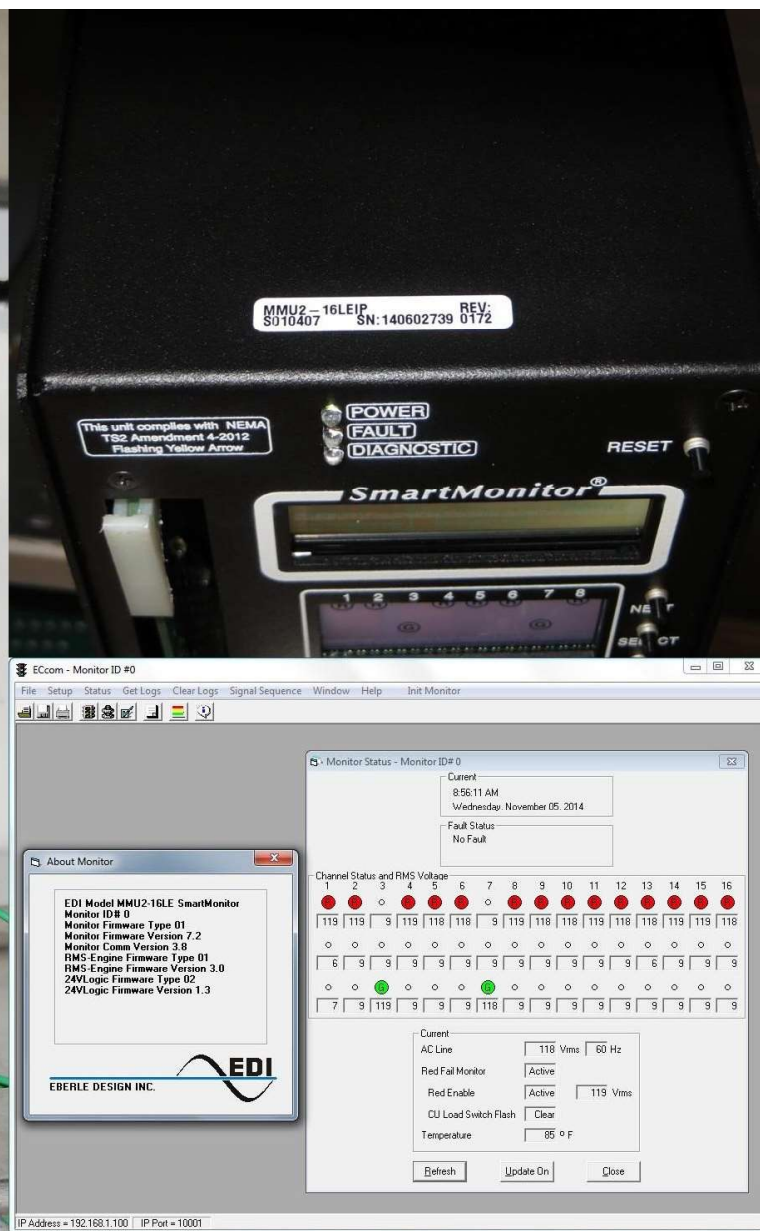
								
Cabinet	Super P44	36 in. G	49 in. M	60 in. M	55 in. P44	55 in. P38	77 in. R	67 in. O
Dimensions	57.25 in. H x 61 in. W x 28.65 in. D	40 in. H x 24.50 in. W x 17.25 in. D (OD)	49.00 in. H x 30.25 in. W x 16.88 in. D (OD)	60.00 in. H x 30.25 in. W x 16.88 in. D (OD)	55.00 in. H x 44.25 in. W x 26.00 in. D (OD)	55.00 in. H x 38.25 in. W x 26.00 in. D (OD)	76.75 in. H x 44.25 in. W x 26.00 in. D (OD)	67.00 in. H x 30.25 in. W x 24.75 in. D (OD)
Material	Aluminum 0.125 in.							
Finish	Natural, Powder Coat Paint, West Spray Paint, Custom Wrap							
Access	1-full size door or 2-full size doors (front and back of cabinet)							
Ventilation	Pleated media fiber filter in door 100 Cubic Feet per Minute (CFM) with thermostatic control							
Locking System	Three-point locking system with choice of locks							
Handles	Stainless steel with padlock feature							
Door Stops	Three-position locking stops on bottom of each door							
Detector Rack Assembly	Shelf-mount detector rack assembly							
Configuration	Four to eight vehicle phases, four pedestrian phases, and four overlaps (optional)							
Police Door	Signal on/off and flash/auto switches and auto/manuals with with police cord (optional)							
Lighting	Incandescent, Fluorescent or LED							
Shelf Drawer	Slide-out shelf/drawer storage unit (optional)							
Flasher	One slot for two-circuit flasher (optional second slot and flasher)							
Flash Transfer Relay	Receptacles for up to 6 flash transfer relays (optional 8 FTR's)							





Search Results : "678-016-008"





Eberle Design, Malfunction Management Unit Type 16, MMU2-16LEip (APL Product)

by Eberle Design Inc. (Manufacturer Website)

Model: MMU2-16LEip

APL Certification

- 678-016-008 (Approval Date: 11/26/2014) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Malfunction Management Unit Type 16

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- Re-evaluated on 3/10/2022 with a minor change to the circuit boards to accommodate a new processor package and firmware version 01-7.4

Manufacturer Detail

Eberle Design Inc.
3510 E. Atlanta Avenue
Phoenix AZ 85040
(480) 968-6407

[Contacts](#)[Report Product Deficiency](#)

Other products in product type Malfunction Management Unit Type 16

Complies With The New
NEMA MMU2 Standard and
MUTCD Requirements



SmartMonitor

MMU2-16LE SERIES

NEMA LCD MALFUNCTION MANAGEMENT UNIT

- MMU2-16LEip with Ethernet Port
- MMU2-16LE with EIA-232 Port

Whether you're a **NOVICE** or **EXPERT** Signal Technician, wouldn't it be great if you could:

- ☐ Use a built-in SETUP WIZARD to **quickly and accurately configure** the Signal Monitor to the exact requirements of the cabinet and intersection?
- ☐ Use a MENU DRIVEN LCD interface to **view** vital cabinet operational details such as field signal voltages, historical event logs, and monitor configuration data?
- ☐ Use a built-in DIAGNOSTIC WIZARD to **automatically diagnose** cabinet malfunctions and **pinpoint** faulty signals?

If your answer is Yes, the **MMU2-16LE SmartMonitor®** is for YOU!

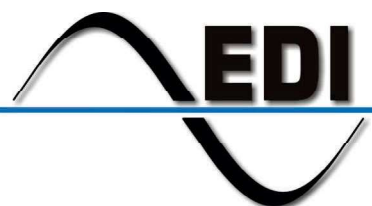
NEW MMU2-16LE SmartMonitor® ENHANCED FEATURES

NEMA TS2-2016 Standard:	The MMU2-16LE SmartMonitor® meets all specifications of the NEMA Standard TS2-2016 for the MMU2 configuration while maintaining compatibility with NEMA TS1-1989 Assemblies.
NEMA Standard Flashing Yellow Arrow PPLT:	The MMU2-16LE SmartMonitor® supports MUTCD Flashing Yellow Arrow PPLT operation and meets / exceeds the NEMA Standard MMU2 requirements of TS2-2016 FYA, providing modes for both TS-2 or TS-1 cabinet configurations.
Standardized Communications:	Real-time SDLC communications with the Controller Unit exchanges field input status, Controller Unit output status, fault status, MMU programming, and time and date.
Full Intersection & Status Display:	Two high contrast, large area Liquid Crystal Displays (LCD) continuously show full RYG(W) intersection status. A separate graphic LCD provides a menu driven user interface to status, signal voltages, configuration, event logs, and the Help system.
Event Logging:	A time-stamped nonvolatile event log records the complete intersection status as well as AC Line events, configuration changes, monitor resets, temperature and true RMS voltages.
Setup Wizard:	Use the built-in Setup Wizard to configure the Nema Enhanced settings of the SmartMonitor® by answering a short series of questions regarding intersection design and operation.
Diagnostic Wizard and Help System	The Diagnostic Wizard <i>automatically pinpoints</i> faulty signals and offers trouble-shooting guidance. The integrated Help System provides context sensitive operational assistance.
TS-1 Type 12 with SDLC Mode:	The MMU2-16LE SmartMonitor® can be configured to operate with the Port 1 SDLC function and Diagnostic Wizard enabled in a TS-1 twelve channel cabinet with no cabinet wiring changes.
Program Card Memory:	Enhanced settings of the MMU2-16LE SmartMonitor® are stored in nonvolatile memory on the EDI Program Card. Moving the Program Card to another MMU2-16LE automatically transfers all settings.
Signal Sequence History Log:	The five Signal Sequence History logs stored in nonvolatile memory graphically display up to 30 seconds of signal status prior to each fault event.
LEDguard®:	This EDI innovative signal threshold technique can be used to increase the level of monitoring protection when using LED based signal heads.
EDI RMS-Engine:	A DSP coprocessor converts AC input measurements to True RMS voltages, virtually eliminating false sensing due to changes in frequency, phase, or sine wave distortion.
ECcom PC Software:	Access to the MMU2-16LE data is provided by the industry standard EDI ECcom Windows based software for status, event log retrieval, configuration, and data archival.

EBERLE DESIGN INC.

3510 East Atlanta Avenue
Phoenix, AZ 85040 USA
www.EDITraffic.com

Tel (480) 968-6407
Fax (602) 437-1996





Search Results : "682-002-023"

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Axis Q6135-LE PTZ (APL Product)

by Axis Communications

Model: Q6135-LE

APL Certification

- 682-002-023 (Approval Date: 11/2/2022) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Camera - Dome

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- Tested with firmware version 10.12.104.

Manufacturer Detail

Axis Communications
300 Apollo Drive
Chelmsford MA 01824
(800) 444-2947

Contacts

Report Product Deficiency

Other products in product type Camera - Dome

AXIS Q6135-LE PTZ Network Camera

High-speed PTZ with long-range optimizedIR

AXIS Q6135-LE offers HDTV 1080p with 32x optical zoom. It features OptimizedIR up to 250 m (820 ft) or more depending on the scene and Lightfinder 2.0 for clear, sharp images even in challenging light. Sharpdome technology allows you to see 20° above the horizon with the same sharp image quality as below. It includes orientation aid and autotracking 2 with click and track functionality. Privacy masking with mosaic lets you pixelate whole areas of the scene. It includes enhanced security features such as signed firmware, secure boot and TPM module. Plus, Axis Zipstream with support for H.264 and H.265.

- > **HDTV 1080p with 32x optical zoom**
- > **OptimizedIR (250 m/820 ft range)**
- > **Lightfinder 2.0**
- > **Autotracking 2 and orientation aid**
- > **TPM, FIPS 140-2 level 2 certified**



AXIS Q6135-LE PTZ Network Camera

Models	AXIS Q6135-LE 50 Hz AXIS Q6135-LE 60 Hz	IP address removed, network lost, new IP address, shock detected, storage failure, system ready, within operating temperature Edge storage: recording ongoing, storage disruption I/O: manual trigger, virtual input MQTT subscribe PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready, PTZ autotracking Scheduled and recurring: scheduled event Video: live stream open, day/night mode
Camera		
Image sensor	1/2.8" Progressive scan CMOS	
Lens	Varifocal, 4.3–137.6 mm, F1.4 – 4.0 Horizontal field of view: 58.3°–2.4° Vertical field of view: 34.9°–1.3° Autofocus, auto-iris	
Day and night	Automatically removable infrared-cut filter	
Minimum illumination	Color: 0.06 lux at 30 IRE F1.4 B/W: 0.008 lux at 30 IRE F1.4, 0 lux with IR illumination on Color: 0.09 lux at 50 IRE F1.4 B/W: 0.01 lux at 50 IRE F1.4, 0 lux with IR illumination on	
Shutter speed	1/66500 s to 2s	
Pan/Tilt/Zoom	Pan: 360° endless, 0.05°–700°/s Tilt: +20 to –90°, 0.05°–500°/s Zoom: 32x optical, 12x digital, total 384x zoom Nadir flip, 256 preset positions, tour recording (max 10, max duration 16 minutes each), guard tour (max 100), control queue, on-screen directional indicator, orientation aid PTZ, set new pan 0°, adjustable zoom speed, speed dry	
System on chip (SoC)		
Model	ARTPEC-7	
Memory	1024 MB RAM, 512 MB Flash	
Compute capabilities	Machine learning processing unit (MLPU)	
Video		
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG	
Resolution	1920x1080p (HDTV 1080p) to 320x180	
Frame rate	Up to 50/60 fps (50/60 Hz) in 1080p	
Video streaming	Multiple, individually configurable streams in H.264, H.265 and Motion JPEG Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265 Low latency mode	
Image settings	Compression, saturation, brightness, sharpness, contrast, local contrast, white balance, exposure control, exposure zones, Forensic WDR: Up to 120 dB depending on scene, defogging, day/night shift level, tone mapping, fine tuning of low-light behavior, rotation: 0°, 180°, text and image overlay, image freeze on PTZ, electronic image stabilization (EIS), scene profiles, 32 individual polygon privacy masks	
Audio		
Audio input/output	Two-way audio connectivity via optional AXIS T61 Audio and I/O Interfaces with portcast technology	
Network		
Security	IP address filtering, HTTPS ^a encryption, IEEE 802.1x (EAP-TLS) ^a network access control, user access log, centralized certificate management,	
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS ^a , HTTP/2, TLS ^a , QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, SSH, NTCIP, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)	
System integration		
Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at axis.com One-Click Cloud Connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at onvif.org	
Event conditions	Analytics Device status: above operating temperature, above or below operating temperature, below operating temperature, fan failure,	
Event actions	Record video: SD card and network share Pre- and post-alarm video or image buffering for recording or upload Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share, and email Notification: email, HTTP, HTTPS, TCP, and SNMP trap PTZ: PTZ preset, guard tour Overlay text, day/night mode WDR mode IR illumination MQTT publish	
Built-in installation aids	Pixel counter, leveling guide	
Analytics		
AXIS Object Analytics	Object classes: humans, vehicles Trigger conditions: line crossing, object in area, time in area ^{BETA} Up to 10 scenarios Metadata visualized with trajectories and color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event	
Metadata	Object data: Classes: humans, faces, vehicles, license plates Confidence, position Event data: Producer reference, scenarios, trigger conditions	
Applications	Included AXIS Object Analytics, AXIS Video Motion Detection, AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard, Autotracking 2, Active Gatekeeper Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap	
Cybersecurity		
Edge security	Software: Signed firmware, brute force delay protection, digest authentication, password protection, AES-XTS-Plain64 256bit SD card encryption Hardware: Secure boot, Axis Edge Vault with secure keystore (CC EAL4+, FIPS 140-2 level 2 certified hardware protection of cryptographic operations and keys)	
Network security	IEEE 802.1X (EAP-TLS) ^a , HTTPS/HSTS ^a , TLS v1.2/v1.3 ^a , Network Time Security (NTS), X.509 Certificate PKI, IP address filtering	
Documentation	<i>AXIS OS Hardening Guide</i> <i>Axis Vulnerability Management Policy</i> <i>Axis Security Development Model</i> AXIS OS Software Bill of Material (SBOM) To download documents, go to axis.com/support/cybersecurity/resources To read more about Axis cybersecurity support, go to axis.com/cybersecurity	
General		
Casing	IK08, IK10 housing and mounting ^b , IP66- and NEMA 4X-rated Repaintable metal casing (aluminum), hard coated Polycarbonate (PC) clear dome with Sharpdome technology	
Sustainability	PVC free	
Power	Axis High PoE midspan 1–port: 100–240 V AC, max 74 W Camera consumption: typical 13.5 W (no IR), max 51 W Axis PoE+ midspan 1–port: 100–240 V AC, max 37 W IEEE 802.3at Type 2 Class 4 Camera consumption: typical 13.5 W, max 25 W	
Connectors	RJ45 10BASE-T/100BASE-TX PoE RJ45 Push-pull Connector (IP66) Audio and I/O connectivity via AXIS T61 Audio and I/O Interfaces with portcast technology	
IR illumination	Optimized IR with power-efficient, long life 850 nm IR LEDs	

	<p>With 30 W midspan: Range of reach 190 m (623 ft) or more depending on the scene</p> <p>With 60 W midspan: Range of reach 250 m (820 ft) or more depending on the scene</p>	<p>IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-30, IEC 60068-2-78, ISO4892-2</p> <p>Network NIST SP500-267 For midspan approvals, see: axis.com/products/axis-t8154-60-w-sfp-midspan</p>
Storage	<p>Support for microSD/microSDHC/microSDXC card</p> <p>Support for SD card encryption</p> <p>Support for recording to network-attached storage (NAS)</p> <p>For SD card and NAS recommendations see axis.com</p>	
Operating conditions	<p>With 30 W midspan: -30 °C to 50 °C (-22 °F to 122 °F)</p> <p>With 60 W midspan: -50 °C to 50 °C (-58 °F to 122 °F)</p> <p>Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)</p> <p>Arctic Temperature Control: Start-up as low as -40 °C (-40 °F)</p> <p>Humidity 10–100% RH (condensing)</p>	
Storage conditions	<p>-40 °C to 70 °C (-40 °F to 158 °F)</p> <p>Humidity 5–95% RH (non-condensing)</p>	
Approvals	<p>EMC EN 55032 Class A, EN 55035, EN 55024, EN 50121-4, IEC 62236-4, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), VCCI Class A, RCM AS/NZS CISPR32 Class A</p> <p>Safety KC KN32 Class A, KN35</p> <p>Environment IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IEC/EN 62471 risk group 2, IS13252</p> <p>Environment IEC/EN 62262 IK08, IEC/EN 60529 IP66, NEMA 250, Type 4X, NEMA TS 2 (2.2.7–2.2.9), IEC 60068-2-1, IEC 60068-2-2,</p>	
		<p>Dimensions Height: 241 mm (9.5 in) ø 165 mm (6.4 in)</p>
		<p>Weight 3 kg (6.6 lb)</p>
		<p>Included accessories IP66-rated RJ45 connector kit, AXIS High PoE 60 W SFP Midspan, installation guide, Windows decoder 1-user licence</p>
		<p>Optional accessories AXIS T91/T94 Mounting Accessories, Axis High PoE midspans For more accessories, see axis.com</p>
		<p>Video management software AXIS Companion, AXIS Camera Station, video management software from Axis' Application Development Partners available on www.axis.com/vms</p>
		<p>Languages English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese</p>
		<p>Warranty 5-year warranty, see axis.com/warranty</p>

- a. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (ey@cryptsoft.com).
- b. Mounting not included

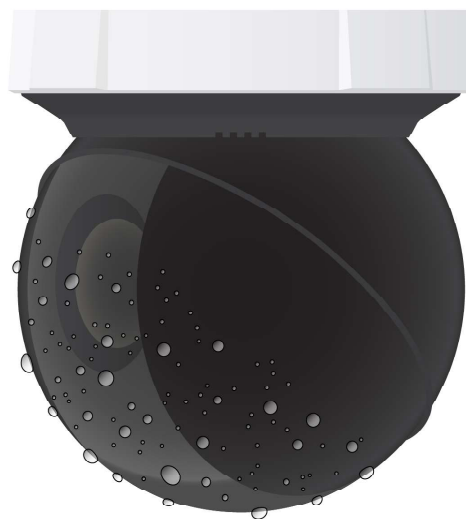
AXIS TQ6802 Hydrophilic Clear Dome

Accessory clear dome with a durable hydrophilic coating. Helps to prevent water droplets from covering the dome in rainy conditions. The coating also provides a self-cleaning effect that helps carry away dirt and dust by rainwash. Additionally, the dome is hard-coated for increased protection against scratches.



With hydrophilic coating

✓ Self cleaning ✓ Quick dry



Without hydrophilic coating

AXIS TQ6802 Hydrophilic Clear Dome

General

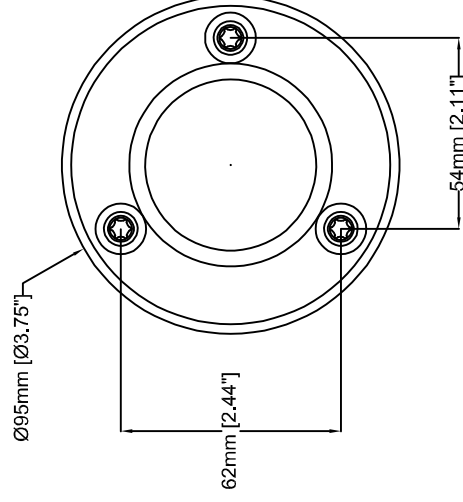
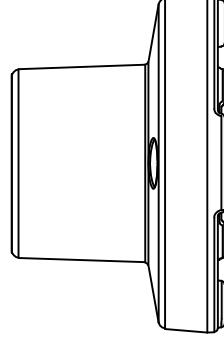
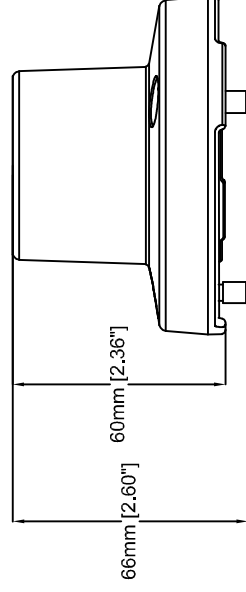
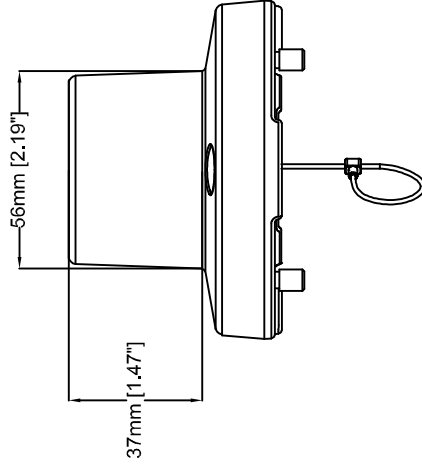
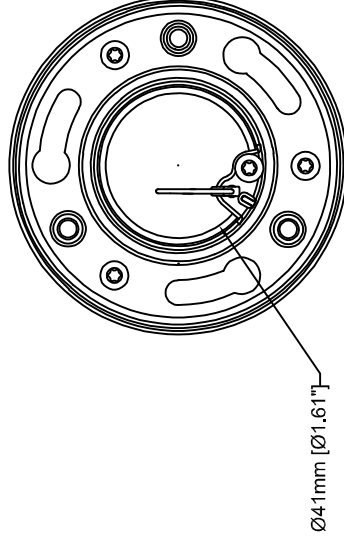
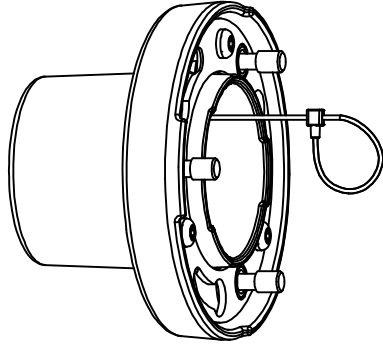
Supported products	AXIS Q6125-LE AXIS Q6135-LE
Casing	Hard and hydrophilic coated Polycarbonate (PC) clear dome with Sharpdome technology
Environment	Indoor Outdoor

Dimensions	140 mm in diameter (5.5 in)
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Weight	400 g (0.8 lb)
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Warranty	Axis 3-year warranty, see www.axis.com/warranty
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Environmental responsibility:
axis.com/environmental-responsibility



AXIS T94A01D Pendant Kit

Revision	v.02	Revision date	2017-08-04
Paper size	A4	Release date	2016-08-20
Created by	JOT/GAB	Scale	1:2

AXIS T8144 60 W Industrial Midspan

Robust in industrial installations

AXIS T8144 60 W Industrial Midspan is an industrial grade, 1-port midspan offering an easy, fast, and cost-effective solution for powering network products. Ideal for mounting inside cabinets or on DIN rails. Having a wide operating temperature range, AXIS T8144 provides a robust solution for harsh environments. With dual DC inputs for power redundancy, AXIS T8144 is a reliable component in your system.

- > 60 W Power over Ethernet
- > Wide operating temperature range: -40 °C to 75 °C (-40 °F to 167 °F)
- > Dual DC input: 20-60 V DC
- > Wide compatibility with Axis PoE devices
- > Plug-and-play



Data



PoE



AXIS T8144 60 W Industrial Midspan

Midspans		General	
Function	Data and power are fed to a network video product through an Ethernet cable Us together with a PoE splitter for a network video product without built-in PoE support	Casing	Steel Color: black
Data rate	10/100/1000 Mbps	Sustainability	PVC free
Installation and management	Automatically detects PoE and High PoE-enabled devices and supplies inline power Local LED management display	Display and indicators	PoE LED Power LEDs: PWR 1 and PWR 2 Alarm LED
Data & power		Mounting	Wall or DIN rail
Power	High Power over Ethernet	Operating conditions	-40 °C to 75 °C (-40 °F to 167 °F) Humidity max 95% RH (non-condensing)
Input	Voltage: 20 to 60 V DC Power: max 72 W	Storage conditions	-40 °C to 85 °C (-40 °F to 185 °F)
Output	Voltage: 55 V DC Power: max 60 W	Approvals	Safety IEC/EN/UL 62368-1, UL 508 EMC EN 55024, EN 55032 Class A, FCC Part 15 Subpart B Class A, VCCI Class A, RCM AS/NZS CISPR32 Class A, ICES-003 Class A, EAC Environment IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-32
Connectors	Shielded RJ45, EIA 568A and 568B 6-pin DC power and alarm terminal connector	Dimensions	78 x 36 x 111 mm (3.1 x 1.4 x 4.4 in)
Wiring	Data provided over pairs 1/2 and 3/6 for 10/100 Ethernet, over all four pairs for Gigabit Ethernet Power over pairs 1/2 (-), 3/6 (+), 4/5 (+) and 7/8 (-)	Weight	315 g (0.7 lb)
		Included accessories	Installation guide DIN Rail Clip Wall Mount
		Warranty	5-year warranty, see axis.com/warranty

Environmental responsibility:

axis.com/environmental-responsibility



Your Reliable Power Partner



DIN Rail Power Supply

AC/DC Switching Power Supplies



Company Profile

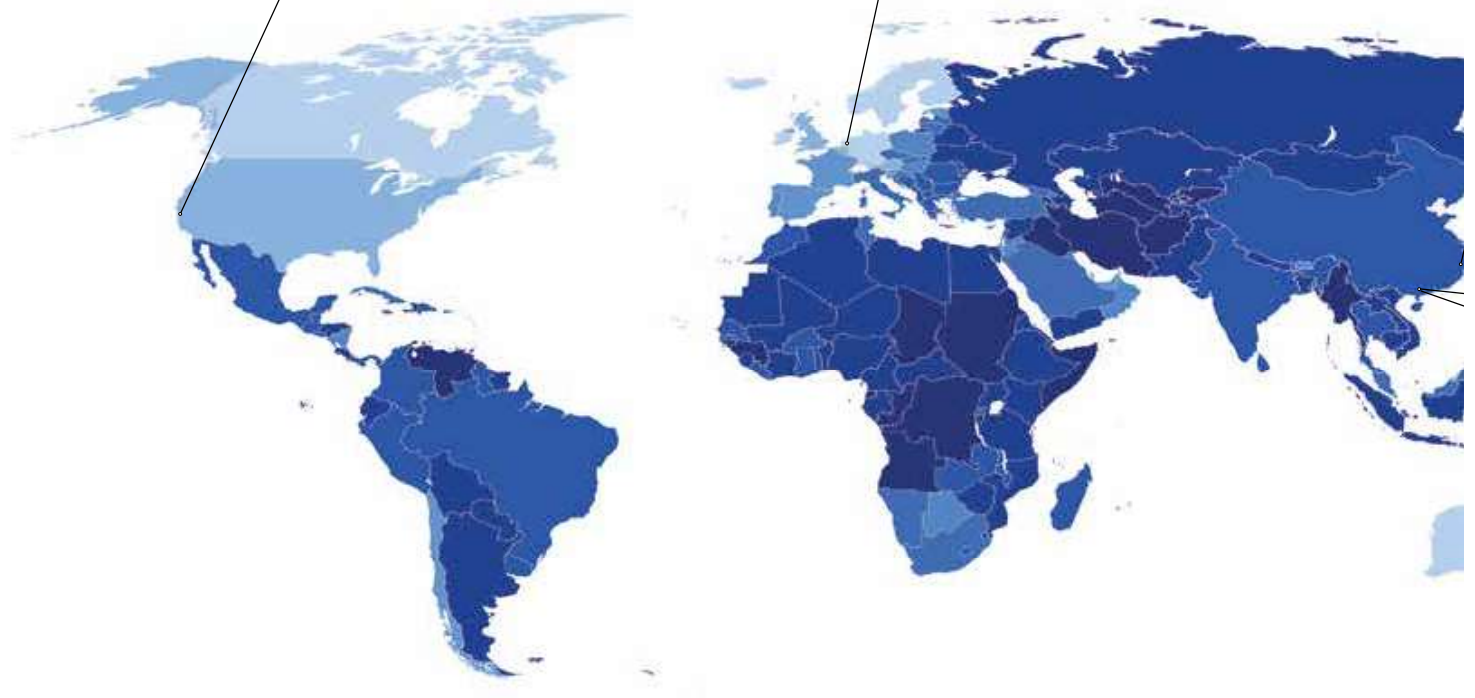
Established in 1982, MEAN WELL is a leading standard switching power supply manufacturers in the world. MEAN WELL currently operates under six financially independent but cooperating companies in Taiwan, China, USA and Europe and four factories in Taiwan, GuangZhou and SuZhou. The product lines include AC/DC switching power supplies, DC/DC converters, waterproof LED power supplies, DC/AC inverters and battery chargers. We have over 8,000 standard models widely used in medical, automation, communication, LED lighting, moving sign, and office automation fields.

The whole product line of MEAN WELL for DIN rail category has supplied more than 40 series and 95 models ranging from 10~960W in total. Supplying multi-solutions including metal case and plastic case type, 1 to 3 phase input voltage operation, complying UL508, UL60950-1, TUV EN60950-1, TUV EN61558-1, -2-16, SEMI and GL safety regulations, passing EN55022 or EN55011 electromagnetic compatibility (EMC) testing for customers to choose.

MEAN WELL USA



MEAN WELL EUROPE



MEAN WELL has always devoted to develop high quality and high cost-effective products in compact dimension. Without the need of fan, these products are suitable to be applied to various industrial locations and battery back-up system, and so on.

With more than 30 years of experience in R&D and production of standard power supplies, MEAN WELL has ten product category covering 5,000 models, to provide “One Stop Shopping” power solutions. Every product in the MEAN WELL range is the result of rigid procedures governing design, design verification test (DVT), design quality test (DQT), component selection, pilot-run production, and mass production.

With more than 200 distributors globally, the MEAN WELL products are distributed to over 70 countries worldwide. The small size orders can expect delivery within 24 hours without MOQ requirement. If you are looking for switching power supply with high reliability, good quality, reasonable price and full series products which can satisfy your various demands, MEAN WELL, a total solution provider, is definitely your first choice!

MEAN WELL SUZHOU



MEAN WELL TAIWAN



MEAN WELL GUANGZHOU



MEAN WELL HWAWEI



Reliable Quality

The brand name “MEAN WELL” is defined as “have good intentions”. We strongly believe that the product quality is the life of power supply manufacturer. “To become the reliable power partner” has been the motivation for MEAN WELL to grow continuously.

In 1994, MEAN WELL acquired the ISO9001 certification and began to implement the total quality management (TQM) system, which are audited by TUV annually to continuous review and improvement. In April 2013, MEAN WELL acquired the ISO14000 certification and obtained the OHSAS18001 system (ESH, environmental safety and health) in 2015, to take the concept of environmental protection into action, and expect to create a safe and healthy life.



OHSAS18001



ISO9001



ISO14000

MEAN WELL DIN Rail power supply products comply with UL / CUL / TUV / CB / CE / GL / SEMI certificates, including UL508, UL1310, UL60950-1, TUV EN60950-1, TUV EN61558-1/-2-16, IEC 60950-1, SEMI F47, GL, EN55011, EN55022.





MEAN WELL has a complete quality management system. To ensure product quality, 100% burn-in test, function test and pressure test have been applied in manufacturing process, while the MIL-105E sampling method used in IQC, PCBQC (semi-finished products testing) and FQC phases. In the R&D stage, MEAN WELL quality engineers customize the "Test Plan" for each product, to complete the verifications of DFMEA, DVT/DQT, ORT, EMC, drop test, vibration test, thermal shock test, and reliability test.

In production stage, the product engineers co-work with process engineers to review the pilot run, semi-finished products quality control, process checking, finished product quality control, and the feedback analysis as well as the production problems occurred.



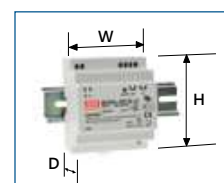
DR Series

Plastic Case — 15~100W Step Shape



Features

- Isolation Class II
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp. (DR-100)
- No load power consumption: <0.5W (DR-15), <1W (DR-100)
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -20~+60°C
- Can be installed on DIN rail TS-35 / 7.5 or 15
- DC output voltage adjustable
- LED indicator for power on
- Suitable for building automation and control of household appliance
- 3 years warranty



Dimension (WxHxD)

DR-15	25x 93x 56mm
DR-30	78x 93x 56mm
DR-60	78x 93x 56mm
DR-100	100x 93x 56mm

15W (DR-15)



Model No.	Output	Tol.	R&N	Effi.
DR-15-5	5V, 2.40A	±2%	80mV	77.0%
DR-15-12	12V, 1.25A	±1%	120mV	84.0%
DR-15-15	15V, 1.00A	±1%	120mV	83.5%
DR-15-24	24V, 0.63A	±1%	150mV	85.0%

60W (DR-60)



Model No.	Output	Tol.	R&N	Effi.
DR-60-5	5V, 6.5A	±2%	80mV	76%
DR-60-12	12V, 4.5A	±1%	120mV	82%
DR-60-15	15V, 4.0A	±1%	120mV	83%
DR-60-24	24V, 2.5A	±1%	150mV	84%

30W (DR-30)



Model No.	Output	Tol.	R&N	Effi.
DR-30-5	5V, 3.0A	±2%	80mV	74%
DR-30-12	12V, 2.0A	±1%	120mV	81%
DR-30-15	15V, 2.0A	±1%	120mV	82%
DR-30-24	24V, 1.5A	±1%	150mV	83%

100W (DR-100)



Model No.	Output	Tol.	R&N	Effi.
DR-100-12	12V, 7.5A	±2%	120mV	87%
DR-100-15	15V, 6.5A	±1%	120mV	87%
DR-100-24	24V, 4.2A	±1%	150mV	89%



Energy Saving —

We care about energy saving. This logo represents that this model has "low no load power consumption" !

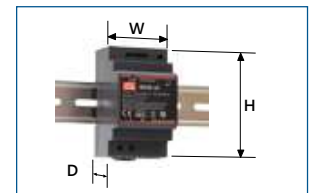
HDR Series

Plastic Case — 15~100W Slim Step Shape



Features

- Compact size with 1SU~4SU width
- Universal AC input / Full range (277VAC available)
- Protections: Short circuit / Overload / Over voltage
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -30~+70°C
- Can be installed on DIN rail TS-35/7.5 or 15
- DC output voltage adjustable
- Class 2 power unit / Pass LPS
- No load power consumption < 0.3W
- Isolation class II
- LED indicator for power on
- Suitable for building automation and control of household appliance
- 3 years warranty



Dimension (WxHxD)

HDR-15	17.5(1SU) x 90 x 55mm
HDR-30	35(2SU) x 90 x 55mm
HDR-60	52.5(3SU) x 90 x 55mm
HDR-100	70(4SU) x 90 x 55mm

15W (HDR-15)



Model No.	Output	Tol.	R&N	Effi.
HDR-15-5	5V, 2.4A	±2.0%	80mV	80%
HDR-15-12	12V, 1.25A	±1.0%	120mV	85.5%
HDR-15-15	15V, 1.0A	±1.0%	120mV	86.5%
HDR-15-24	24V, 0.63A	±1.0%	150mV	88%
HDR-15-48	48V, 0.32A	±1.0%	240mV	88%

60W (HDR-60)



Model No.	Output	Tol.	R&N	Effi.
HDR-60-5	5V, 6.5A	±2.0%	80mV	85%
HDR-60-12	12V, 4.5A	±1.0%	120mV	88%
HDR-60-15	15V, 4.0A	±1.0%	120mV	89%
HDR-60-24	24V, 2.5A	±1.0%	150mV	90%
HDR-60-48	48V, 1.25A	±1.0%	240mV	91%

30W (HDR-30)



Model No.	Output	Tol.	R&N	Effi.
HDR-30-5	5V, 3.0A	±2.0%	80mV	82%
HDR-30-12	12V, 2.0A	±1.0%	120mV	88%
HDR-30-15	15V, 2.0A	±1.0%	120mV	89%
HDR-30-24	24V, 1.5A	±1.0%	150mV	89%
HDR-30-48	48V, 0.75A	±1.0%	240mV	90%

100W (HDR-100)



Model No.	Output	Tol.	R&N	Effi.
HDR-100-12	12V, 7.5A	±2.0%	120mV	88%
HDR-100-15	15V, 6.34A	±1.0%	120mV	89%
HDR-100-24	24V, 3.96A	±1.0%	150mV	90%
HDR-100-48	48V, 1.98A	±1.0%	240mV	91%

MDR Series

Plastic Case — 10~96W Ultra Slim



Features

- Universal AC input / Full range
- Built-in active PFC and over temp. protection (MDR-100)
- **Class I, Div 2 Hazardous Locations T4(MDR-40/60)**
- Protections: Short circuit / Overload / Over voltage
- Built-in constant current limiting circuit (MDR-20~100)
- Cooling by free air convection
- Working temperature: -20~+70°C by models
- Can be installed on DIN rail TS-35 / 7.5 or 15
- No load power consumption <0.75W (<1W for MDR-100)
- DC OK signal output (MDR-10/20);
DC OK relay contact (MDR-40/60/100)
- DC output voltage adjustable (MDR-20~100)
- LED indicator for power on
- 3 years warranty



Dimension (WxHxD)

MDR-10	22.5x 90x 100mm
MDR-20	22.5x 90x 100mm
MDR-40	40x 90x 100mm
MDR-60	40x 90x 100mm
MDR-100	55x 90x 100mm

10W (MDR-10)



Model No.	Output	Tol.	R&N	Effi.
MDR-10-5	5V, 2.0A	±5%	80mV	77%
MDR-10-12	12V, 0.84A	±3%	120mV	81%
MDR-10-15	15V, 0.67A	±3%	120mV	81%
MDR-10-24	24V, 0.42A	±2%	150mV	84%

60W (MDR-60)



Model No.	Output	Tol.	R&N	Effi.
MDR-60-5	5V, 10.0A	±2%	80mV	78%
MDR-60-12	12V, 5.00A	±1%	120mV	86%
MDR-60-24	24V, 2.50A	±1%	150mV	88%
MDR-60-48	48V, 1.25A	±1%	200mV	87%

20W (MDR-20)



Model No.	Output	Tol.	R&N	Effi.
MDR-20-5	5V, 3.0A	±2%	80mV	76%
MDR-20-12	12V, 1.67A	±1%	120mV	80%
MDR-20-15	15V, 1.34A	±1%	120mV	81%
MDR-20-24	24V, 1.00A	±1%	150mV	84%

96W (MDR-100)



Model No.	Output	Tol.	R&N	Effi.
MDR-100-12	12V, 7.5A	±1%	120mV	83%
MDR-100-24	24V, 4.0A	±1%	150mV	86%
MDR-100-48	48V, 2.0A	±1%	200mV	87%

40W (MDR-40)



Model No.	Output	Tol.	R&N	Effi.
MDR-40-5	5V, 6.00A	±2%	80mV	78%
MDR-40-12	12V, 3.33A	±1%	120mV	86%
MDR-40-24	24V, 1.70A	±1%	150mV	88%
MDR-40-48	48V, 0.83A	±1%	200mV	88%



Energy Saving —

We care about energy saving. This logo represents that this model has "low no load power consumption" !

EDR/NDR Series

Metal Case — 75~480W Slim & Economical



Features

- Universal AC input / Full range
- Built-in active PFC function(NDR-240/480)
- High efficiency up to 92.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -20~+60°C(EDR), -20~+70°C(NDR)
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- 3 years warranty (2 years warranty for EDR)



Dimension (WxHxD)

EDR-75	32x 125.2x 102mm	EDR-150	40x 125.2x 113.5mm
EDR-120	40x 125.2x 113.5mm		



Dimension (WxHxD)

NDR-75	32x 125.2x 102mm	NDR-240	63x 125.2x 113.5mm
NDR-120	40x 125.2x 113.5mm	NDR-480	85.5x 125.2x 128.5mm

75W (EDR-75)



Model No.	Output	Tol.	R&N	Effi.
EDR-75-12	12V, 6.3A	±2.0%	80mV	85.5%
EDR-75-24	24V, 3.2A	±1.0%	120mV	87.5%
EDR-75-48	48V, 1.6A	±1.0%	150mV	88.5%

120W (EDR-120)



Model No.	Output	Tol.	R&N	Effi.
EDR-120-12	12V, 10A	±2.0%	100mV	85.0%
EDR-120-24	24V, 5.0A	±1.0%	120mV	87.5%
EDR-120-48	48V, 2.5A	±1.0%	150mV	88.5%

150W (EDR-150)



Model No.	Output (230VAC/115VAC)	Tol.	R&N	Effi.
EDR-150-24	24V, 6.5A/5.2A	±1.0%	150mV	87.0%

EDR vs. NDR

Difference Series	EMI	Working Temp.	Warranty
EDR	Class A	-20~+60°C	2 years
NDR	Class B	-20~+70°C	3 years

75W (NDR-75)



Model No.	Output	Tol.	R&N	Effi.
NDR-75-12	12V, 6.3A	±2.0%	80mV	85.5%
NDR-75-24	24V, 3.2A	±1.0%	150mV	88.0%
NDR-75-48	48V, 1.6A	±1.0%	240mV	89.0%

120W (NDR-120)



Model No.	Output	Tol.	R&N	Effi.
NDR-120-12	12V, 10A	±2.0%	100mV	85.5%
NDR-120-24	24V, 5.0A	±1.0%	120mV	88.0%
NDR-120-48	48V, 2.5A	±1.0%	150mV	89.0%

240W (NDR-240)



Model No.	Output	Tol.	R&N	Effi.
NDR-240-24	24V, 10A	±1.0%	150mV	88.5%
NDR-240-48	48V, 5.0A	±1.0%	150mV	90.0%

480W (NDR-480)



Model No.	Output	Tol.	R&N	Effi.
NDR-480-24	24V, 20A	±1.0%	150mV	92.5%
NDR-480-48	48V, 10A	±1.0%	150mV	92.5%

SDR Series

Metal Case — 75~960W Slim & High Efficiency



Features

- Universal AC input / Full range
(AC input 180~264VAC only for SDR-960)
- Built-in active PFC function (SDR-120/240/480/960)
- High efficiency up to 94%
- Protections: Short circuit / Overload /
Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -30~+70°C
- Can be installed on DIN rail TS-35 / 7.5 or 15
- Built-in DC OK relay contact (SDR-120/240/480/960)
- DC output voltage adjustable
- 150% peak load capability (130% for SDR-960)
- Current sharing up to 3840W (7+1) for SDR-480P;
Current sharing up to 3840W (3+1) for SDR-960
- Comply with GL (SDR-120/240/480);
Comply with SEMI F47 (SDR-75/120/240/480)
- 3 years warranty



Dimension (WxHxD)

SDR-75	32x 125.2x 102mm
SDR-120	40x 125.2x 113.5mm
SDR-240	63x 125.2x 113.5mm
SDR-480P	85.5x 125.2x 128.5mm
SDR-960	110x 125.2x 150mm

75W (SDR-75)



Model No.	Output	Tol.	R&N	Effi.
SDR-75-12	12V, 6.3A	±1.0%	100mV	88.5%
SDR-75-24	24V, 3.2A	±1.0%	100mV	89.0%
SDR-75-48	48V, 1.6A	±1.0%	120mV	90.0%

480W (SDR-480P)



Model No.	Output	Tol.	R&N	Effi.
SDR-480□-24	24V, 20A	±1.2%	100mV	94.0%
SDR-480□-48	48V, 10A	±1.0%	120mV	94.0%

□=blank, P ; Blank: basic function, P: with parallel function

120W (SDR-120)



Model No.	Output	Tol.	R&N	Effi.
SDR-120-12	12V, 10A	±1.0%	100mV	89.0%
SDR-120-24	24V, 5.0A	±1.0%	100mV	91.0%
SDR-120-48	48V, 2.5A	±1.0%	120mV	90.5%

960W (SDR-960)



Model No.	Output	Tol.	R&N	Effi.
SDR-960-24	24V, 40A	±1.0%	180mV	94.0%
SDR-960-48	48V, 20A	±1.0%	250mV	94.0%

240W (SDR-240)



Model No.	Output	Tol.	R&N	Effi.
SDR-240-24	24V, 10A	±1.0%	100mV	94.0%
SDR-240-48	48V, 5.0A	±1.0%	120mV	94.0%

WDR/TDR Series



Metal Case — 120~480W Slim Wide Input Range / 480~960W Slim 3-phase

Features

- **AC input range:**
WDR- Single and two phase, 180~550VAC wide input
TDR - Three phase, 340~550VAC input
- Width only 110mm for TDR-960; 85.5mm for TDR-480
- Built-in active PFC function (except for WDR-120)
- **High efficiency up to 94.5%**
- Protections: Short circuit / Overload /
Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -30~+70°C
- Can be installed on DIN rail TS-35/7.5 or 15
- Built-in DC OK relay contact (optional for TDR-480)
- Current sharing up to 3840W(3+1) for TDR-960
- 3 years warranty



Dimension (WxHxD)

WDR-120	40x 125.2x 113.5mm	WDR-480	85.5x 125.2x 128.5mm
WDR-240	63x 125.2x 113.5mm		



Dimension (WxHxD)

TDR-480	85.5x 125.2x 128.5mm
TDR-960	110x 125.2x 150mm

120W (WDR-120)



Model No.	Output	Tol.	R&N	Effi.
WDR-120-12	12V, 10A	±1.5%	120mV	89.5%
WDR-120-24	24V, 5.0A	±1.0%	120mV	91.0%
WDR-120-48	48V, 2.5A	±1.0%	150mV	92.0%

240W (WDR-240)



Model No.	Output	Tol.	R&N	Effi.
WDR-240-24	24V, 10A	±1.0%	150mV	91%
WDR-240-48	48V, 5.0A	±1.0%	150mV	91%

480W (WDR-480)



Model No.	Output	Tol.	R&N	Effi.
WDR-480-24	24V, 20A	±1.0%	100mV	92%
WDR-480-48	48V, 10A	±1.0%	150mV	93%

480W (TDR-480)



Model No.	Output	Tol.	R&N	Effi.
TDR-480-24	24V, 20A	±1.0%	150mV	92.0%
TDR-480-48	48V, 10A	±1.0%	240mV	92.0%

960W (TDR-960)



Model No.	Output	Tol.	R&N	Effi.
TDR-960-24	24V, 40A	±1.0%	180mV	94.0%
TDR-960-48	48V, 20A	±1.0%	250mV	94.5%

WDR vs. TDR

Series	Difference	AC Input Voltage
WDR		1,2-phase; 180~550VAC
TDR		3-phase; 340~550VAC

DR/DRP Series

Metal Case — 45~480W



Features

- 85~264VAC input (DR-45/75, DRP-240)
115VAC/230VAC selectable by switch (DR-120, DRP-480S)
180~264VAC only (DRP-480)
- Built-in active PFC function (DRP-240);
Passive PFC(DRP-480/480S)
- Protections: Short circuit / Overload / Over voltage /
Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -20~+70°C by models
- Can be installed on DIN rail TS-35 / 7.5 or 15
- LED indicator for power on
- 3 years warranty



Dimension (WxHxD)

DR-45	78x 93x 67mm
DR-75	55.5x 125.2x 100mm
DR-120	65.5x 125.2x 100mm
DRP-240	125.5x 125.2x 100mm
DRP-480	227x 125.2x 100mm
DRP-480S	227x 125.2x 100mm

45W (DR-45)



Model No.	Output	Tol.	R&N	Effi.
DR-4505	5V, 5.0A	±2.0%	100mV	72%
DR-4512	12V, 3.5A	±1.0%	200mV	77%
DR-4515	15V, 2.8A	±1.0%	240mV	77%
DR-4524	24V, 2.0A	±1.0%	480mV	80%

75W (DR-75)



Model No.	Output	Tol.	R&N	Effi.
DR-75-12	12V, 6.3A	±2.0%	100mV	76%
DR-75-24	24V, 3.2A	±1.0%	150mV	80%
DR-75-48	48V, 1.6A	±1.0%	240mV	81%

120W (DR-120)



Model No.	Output	Tol.	R&N	Effi.
DR-120-12	12V, 10A	±2.0%	80mV	80%
DR-120-24	24V, 5.0A	±1.0%	80mV	84%
DR-120-48	48V, 2.5A	±1.0%	100mV	85%

240W (DRP-240)



Model No.	Output	Tol.	R&N	Effi.
DRP-240-24	24V, 10A	±1.0%	80mV	84.0%
DRP-240-48	48V, 5.0A	±1.0%	150mV	85.0%

480W (DRP-480)



Model No.	Output	Tol.	R&N	Effi.
DRP-480-24	24V, 20A	±1.0%	120mV	89.0%
DRP-480-48	48V, 10A	±1.0%	120mV	89.0%

480W (DRP-480S)



Model No.	Output	Tol.	R&N	Effi.
DRP-480S-24	24V, 20A	±1.0%	120mV	89.0%
DRP-480S-48	48V, 10A	±1.0%	120mV	89.0%

DRH/DRT Series

Metal Case — 120~960W 3-phase



Features

- Input 340~550VAC, 3-phase (2-phase for DRH-120)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Working temperature: -20~+70°C by models
- Can be installed on DIN rail TS-35 / 7.5 or 15
- Optional parallel function (1+1) (960W only)
- LED indicator for power on
- 3 years warranty



Dimension (WxHxD)

DRH-120	65.5x 125.2x 100mm
DRT-240	125.5x 125.2x 100mm
DRT-480	227x 125.2x 100mm
DRT-960	276x 125.2x 100mm

120W (DRH-120) (2-phase)



Model No.	Output	Tol.	R&N	Effi.
DRH-120-24	24V, 0~5.0A	±1.0%	80mV	85%
DRH-120-48	48V, 0~2.5A	±1.0%	80mV	86%

480W (DRT-480) (3-phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-480-24	24V, 0~20A	±1.0%	80mV	89%
DRT-480-48	48V, 0~10A	±1.0%	80mV	90%

240W (DRT-240) (3-phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-240-24	24V, 0~10A	±1.0%	80mV	89%
DRT-240-48	48V, 0~5.0A	±1.0%	80mV	89%

960W (DRT-960) (3-phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-960-24	24V, 0~40A	±1.0%	80mV	91%
DRT-960-48	48V, 0~20A	±1.0%	80mV	92%

DR-RDN20 / DR-UPS40

Peripheral Module

20A Power Supply Redundant Module

DR-RDN20 is a 20A redundancy (decoupling) module for the 24VDC power system. Containing 2 sets of 20A Or-ing diodes with wonderful heat dissipation deployment, DR-RDN20 offers a safe option of 1+N redundant set-up. Not only perfectly decouple power sources from each other as well as from the load, DR-RDN-20 also provides users monitoring signals for both input channels through the built-in relays.

Features

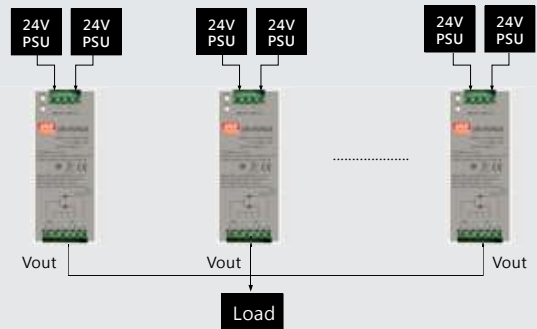
- Suitable for redundant operation of 24V system
- Can be installed on DIN rail TS-35 / 7.5 or 15
- Relay contact signal output and LED indicator for input failure alarm
- Cooling by free air convection
- Working temperature: -40~+70°C
- 3 years warranty

Model No.	Output	Reverse Voltage	Current
DR-RDN20	24V, 20A	30V max.	20A max.



Example of Application

1+N Redundancy : Using 1 more PSU as the redundant unit



40A DC UPS Module

DR-UPS40 is a 40A max. DC UPS (battery control) module for the 24VDC power system. Accompany with external batteries, it can back-up up to 40A of current to critical loads for certain period of time depending on the capacity of batteries. With complete monitoring signals / LED indicators for DC BUS OK, Battery Fail, Battery Discharge, and the repeated Battery Test function to check the situation of external batteries, users can customize their own DC UPS system to back up critical loads and capture the status of the whole system easily.

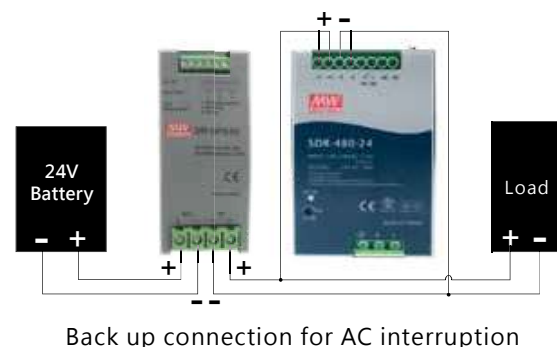
Features

- Battery controller for DIN rail UPS system
- Parallel connected to DC BUS
- Suitable for 24V system up to 40A
- Can be installed on DIN Rail TS-35 / 7.5 or 15
- Built-in battery test function
- Battery polarity protection
- Relay contact signal output and LED indicator for DC BUS OK, Battery Fail, and Battery Discharge
- Cooling by free air convection
- Working temperature: -20~+70°C
- 3 years warranty

Model No.	DC BUS Voltage	DC BUS Current
DR-UPS40	24~29V	40A max.



Example of Application



DRA/DRC Series

40W & 60W Output Current Programmable /
40~100W Battery Charger with UPS Function

Features

- Universal AC input / Full range
- **Io can be trimmed 10~100% by 1~10Vdc, PWM signal or resistance**
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Working temperature: -30~+70°C



- Can be installed on DIN rail TS-35 / 7.5 or 15
- Pass LPS
- LED indicator for power on
- **Suitable for machine vision inspection system and plant cultivation application**
- 3 years warranty

40W (DRA-40)

Model No.	Output	Tol.	R&N	Effi.
DRA-40-12	12V, 3.34A	±1.0%	120mV	85%
DRA-40-24	24V, 1.7A	±1.0%	150mV	87%

60W (DRA-60)

Model No.	Output	Tol.	R&N	Effi.
DRA-60-12	12V, 5A	±1.0%	120mV	85%
DRA-60-24	24V, 2.5A	±1.0%	150mV	87%

Features

- Universal AC input / Full range
- **Single output with battery charger (UPS function)**
- Protections: Short circuit / Overload / Over voltage / Battery low protection / Battery reverse polarity protection by fuse
- Alarm signal for AC OK and battery low
- Cooling by free air convection
- Working temperature: -30~+70°C
- Can be installed on DIN rail TS-35/7.5 or 15



- Pass LPS (DRC-40/60)
- LED indicator for power on
- **Suitable for security application**
- 3 years warranty

40W (DRC-40)

Model No.	Output	Tol.	R&N	Effi.	Max.
DRC-40A	13.8V, 2.9A	±1%	120mV	86%	40W
	13.8V, 1.0A (Charger)				
DRC-40B	27.6V, 1.45A	±1%	200mV	87%	40W
	27.6V, 0.5A (Charger)				

60W (DRC-60)

Model No.	Output	Tol.	R&N	Effi.	Max.
DRC-60A	13.8V, 4.3A	±1%	120mV	86%	59W
	13.8V, 1.5A (Charger)				
DRC-60B	27.6V, 2.15A	±1%	200mV	88%	59W
	27.6V, 0.75A (Charger)				

100W (DRC-100)

Model No.	Output	Tol.	R&N	Effi.	Max.
DRC-100A	13.8V, 7A	±1%	120mV	87%	97W
	13.8V, 2.5A (Charger)				
DRC-100B	27.6V, 3.5A	±1%	240mV	89%	97W
	27.6V, 1.25A (Charger)				

KNX-20E-640

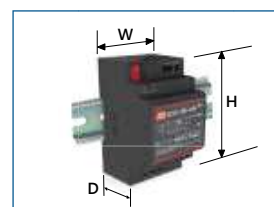
20W KNX Power Supply

Features

- EIB / KNX power supply with integrated choke
- Compact size with 3SU(52.5mm) width
- 180~264VAC input
- No load power consumption <0.5W
- 200ms mains failure back-up time
- Button for bus reset on top
- Protections: Short circuit / Overload
(short-circuit-proof) / Over voltage
- Cooling by free air convection
- Working temperature: -30~+70°C
- Isolation class I
- LED indicator for normal operation,
bus reset and bus overload
- Can be installed on DIN rail TS-35/7.5 or 15
- 3 years warranty



SELV **KNX**  
EN61558-1
EN61558-2-16



W52.5x H90x D55mm

Model No.	V _{out1} (with choke)	V _{out2} (without choke)	I _{out} (I ₁ + I ₂)	R&N	Effi.
KNX-20E-640	Bus, 30VDC	30VDC	640mA	100mV	86%

Applications



Security Systems



Blinds & Shutters



HVAC Systems



Remote Control



Lighting



Energy Management



Fire & Smoke Detection



Metering



White Goods



Monitoring Systems

The KNX Power Supply KNX-20E-640 is a 640mA power supply with high efficiency and a small footprint of only 3SU (52.5 mm). The device has a KNX bus choke output and an additional output for ancillary power.




















The -30~+70°C wide temperature operating range can meet all kinds of applications. LED indicators are used in case of normal operation, overload conditions and RESET operation. It is perfectly suitable to power up any products labeled with the KNX trademark. With over 30 years of industrial power supply experience, KNX-20E-640 is engineered to be a reliable and safe solution for KNX bus environment.

Safety Chart

Safety	Safety								EMC		
	UL508	UL60950-1	TUV EN60950-1	TUV EN61558-1, -2-16	SEMI	GL	CB	CE	EN55022 Class□	EN55011	EN50491-5-1, -5-2, -5-3
Series Name											
DR-15/30/60/100		●	●				●	●	B	●	
HDR-15	●	●		●			●	●	B	●	
HDR-30	●	●		●			●	●	B	●	
HDR-60	●	●		●			●	●	B	●	
HDR-100	●	●		●			●	●	B	●	
MDR-10	●		●				●	●	B	●	
MDR-20	●		●				●	●	B	●	
MDR-40	●	●	●				●	●	B	●	
MDR-60	●	●	●				●	●	B	●	
MDR-100	●		●					●	B	●	
EDR-75/120/150	●		●				●	●	A	●	
NDR-75/120/240/480	●		●				●	●	B	●	
SDR-75	●		●		●		●	●	B	●	
SDR-120	●		●		●	●	●	●	B	●	
SDR-240	●		●		●	●	●	●	B	●	
SDR-480□P	●		●		●	●	●	●	B	●	
SDR-960	●		●				●	●	B	●	
WDR-120/240/480	●						●	●	B	●	
TDR-480	●						●	●	B	●	
TDR-960	●						●	●	B	●	
DR-45/75	●		●				●	●	B	●	
DR-120/240/480/480S	●	●	●				●	●	B	●	
DRH-120		●					●	●	B	●	
DRT-240/480/960	●	●	●				●	●	B	●	
DRA-40/60		●	●				●	●	B	●	
DRC-40/60/100		●	●				●	●	B	●	
KNX-20E				●				●		●	●
DR-RDN20	●							●	B	●	
DR-UPS40								●	B	●	

Selection Guide

Category	Model		Power (W)	PFC	Input voltage (VAC)	Output voltage (VDC)	Dimension (mm)	Key features	
	Series name	Picture							
Plastic case	DR-15		15	-	85~264	5, 12, 15, 24	25 x 93 x 56	<div> Class II</div> Step shape	
	DR-30		30				78 x 93 x 56		
	DR-60		60		88~264	12, 15, 24	100 x 93 x 56		
	DR-100		100						
	DR-45		45	-	85~264	5, 12, 15, 24	78 x 93 x 67	<div> Class I</div>	
	HDR-15	15	85~277				5, 12, 15, 24, 48	17.5 x 90 x 55	<div> Class II</div> Slim step shape
	HDR-30	30			35 x 90 x 55				
	HDR-60	60			52.5 x 90 x 55				
	HDR-100	100		12, 15, 24, 48	70 x 90 x 55				
	MDR-10		10	-	85~264	5, 12, 15, 24	22.5 x 90 x 100	<div> Class I</div>	
	MDR-20		20				5, 12, 24, 48	40 x 90 x 100	<div>DC OK</div>
	MDR-40		40			55 x 90 x 100		<div>Class I Div 2 / HL</div> (MDR-40/60)	
	MDR-60		60						
	MDR-100		96			12, 24, 48			
Metal case	EDR-75		75	-	90~264	12, 24, 48	32 x 125.2 x 102	<div> Class I</div> Slim & Low cost	
	EDR-120		120				40 x 125.2 x 113.5		
	EDR-150		150			24			
	NDR-75		75	-	90~264	12, 24, 48	32 x 125.2 x 102	<div> Class I</div> Slim & Economical	
	NDR-120		120				40 x 125.2 x 113.5		
	NDR-240		240	V		24, 48	63 x 125.2 x 113.5		
	NDR-480		480				85.5 x 125.2 x 128.5		
	SDR-75		75	-	88~264	12, 24, 48	32 x 125.2 x 102	<div> Class I</div> <div>Parallel</div> (SDR-480P/960)	
	SDR-120		120	40 x 125.2 x 113.5					
	SDR-240		240	V		24, 48	63 x 125.2 x 113.5		
	SDR-480P		480				85.5 x 125.2 x 128.5		
	SDR-960		960				110 x 125.2 x 150		
						180~264			

Category	Model		Power (W)	PFC	Input voltage (VAC)	Output voltage (VDC)	Dimension (mm)	Key features
	Series name	Picture						
Metal case	WDR-120		120	-	180~550 1&2-phase	12, 24, 48	40 x 125.2 x 113.5	 Class I Slim & Wide input range
	WDR-240		240	V		24, 48	63 x 125.2 x 113.5	
	WDR-480		480				85.5 x 125.2 x 128.5	
	TDR-480		480	V	340~550 3-phase (2-phase possible)	24, 48	85.5 x 125.2 x 128.5	 Class I  Parallel (TDR-960)  DC OK (optional for TDR-480) Slim 3-phase
	TDR-960		960				110 x 125.2 x 150	
	DR-75		75	-	85~264	12, 24, 48	55.5 x 125.2 x 100	 Class I
	DR-120		120		115/230 by S.W		65.5 x 125.2 x 100	
	DRP-240		240	V	85~264	24, 48	125.5 x 125.2 x 100	
	DRP-480		480		180~264		227 x 125.2 x 100	
	DRP-480S				115/230 by S.W			
	DRH-120				120		-	
	DRT-240	240		340~550 3-phase (2-phase possible)	125.5 x 125.2 x 100			
	DRT-480	480			227 x 125.2 x 100			
	DRT-960	960			276 x 125.2 x 100			
Accessories	DR-RDN20		-	-	21~28VDC	24	55.5 x 125.2 x 100	 Class I 20A redundant module
	DR-UPS40		-	-	24~29VDC	24~29		 Class I 40A DC UPS module
Specific	DRA-40		40	-	90~264	12, 24	40 x 90 x 100	 Class I Io programmable 10~100%
	DRA-60		60					
Security	DRC-40		40	-	90~264	13.8, 27.6	40 x 90 x 100	 Class I Battery charger with UPS function
	DRC-60		60				55x 90x 100	
	DRC-100		100					
KNX Power	KNX-20E-640		20	-	180~264	30	52.5 x 90 x 55	 Class I 

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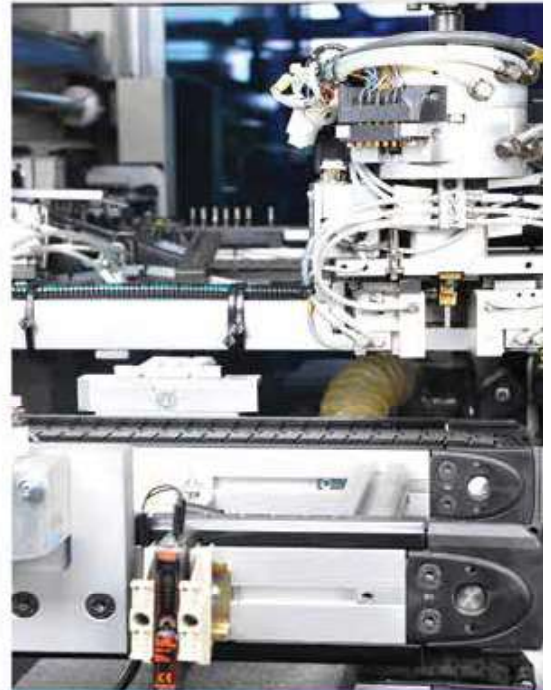
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August 2016



●



by Cisco Systems, Inc. (Manufacturer Website)

Model: IE 2000 Series

APL Certification

- 684-002-037 (Approval Date: 12/2/2020) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- Managed Field Ethernet Switch

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

- IE2000 tested with Firmware: Version 15.0(2), release FC4

Manufacturer Detail

Cisco Systems, Inc.
170 West Tasman Dr.
San Jose CA 95134
919-392-4887

Contacts

Report Product Deficiency

Other products in product type Managed Field Ethernet Switch

Cisco Industrial Ethernet 2000 Series Switches Data Sheet

Updated: April 25, 2022

[Bias-Free Language](#)

Product overview

The Cisco® Industrial Ethernet 2000 (IE 2000) Series is a range of compact, ruggedized access switches that handle security, voice, and video traffic across industrial networks. They provide customers in industries such as automotive, oil and gas, mining, transportation, and energy with highly secure access and industry-leading convergence using Cisco Resilient Ethernet Protocol (REP).

Product details

The Cisco IE 2000 Series are designed for low cost, low ports, and small sizes. They offer:

- Four, eight, or 16 10/100Base-T Ethernet ports (Small Form-Factor Pluggable [SFP] downlinks on selected models); fixed configurations with a compact form factor
- Two gigabit combo ports: SFP (100 Mbps and 1 Gbps) or RJ45 uplink
- Dual-input DC power supply, alarm relays, DIN rail mount
- Industrial Power over Ethernet (PoE) solution
- Conformal coating SKUs available (IE-2000-16TC-G-X and IE-2000-16PTC-G- NX)
- Swappable SD flash card and mini-USB connector
- Industrial environmental compliance and certifications
- Industrial partner applications: Ethernet/IP and PROFINET

Primary benefits and features

- **Easy deployment:** Zero-touch discovery using Dynamic Host Control Protocol (DHCP), auto sync to SD card, express setup, and fast boot-up time (60 seconds) to help in migrating to an Ethernet environment without resistance.
- **Security:** 802.1x, port security, and DHCP allow dynamic port-based authentication; Secure Shell (SSHv2); SNMPv3 provides encrypted administrator traffic during Telnet and SNMP sessions; TACACS+ and RADIUS authentication facilitate centralized control and restrict unauthorized users.
- **Resiliency:** Cisco REP ring protocol and PROFINET- Media Redundancy Protocol (MRP)
- **Manageability:** Cisco DNA Center software, Auto SmartPort, Web Device Manager, Telnet, HTTPS access, SNMP, CNA, and Cisco Prime Infrastructure.
- **Network Address Translation (NAT):** Line-rate, hardware-enabled 1:1 static address translation designed to enable duplicate IP address usage in the Layer 2 machine node networks.
- **Layer 3 routing:** IPv4 and IPv6.
- **Industrial PoE:** PoE (IEEE 802.af) and PoE+ (802.3at) supported on selected models.
- **Industrial automation protocols:** EtherNet/IP (CIP) and PROFINET MRP (IEC 62439-2) allow integration with existing management platforms from Rockwell, Siemens, and others.

Product specifications

Switch performance and scalability

- Maximum Forwarding Bandwidth 3.8Gbps
- Maximum Switching Bandwidth 7.6Gbps
- Maximum Forwarding rate: 5.66Mpps with 64-byte packets (Line-rate at all packet sizes)
- Egress buffer: 2 MB
- Unicast MAC addresses: 8000
- Internet Group Management Protocol (IGMP) multicast groups: 255
- Maximum virtual LANs (VLANs): 1005
- IPv4 MAC security ACEs: 384 (default Ternary Content-Addressable Memory [TCAM] template)
- Bidirectional, 128 NAT translation entries
- IPv4 routing: 3500 routes, IPv6 routing: 1750 routes

Detailed product information

Figure 1 shows switch models, and Table 1 shows the Cisco IE 2000 Series configuration information. Table 2 lists the SKUs for power supplies and license upgrades. Table 3 includes IE 2000 Series product specifications. Table 4 lists the IE 2000 Series power supplies Table 5 lists software features Table 6 details the Cisco DNA Essentials PIDs available for order. Table 7 includes compliance specifications. Table 8 outlines management and relevant industry standards.

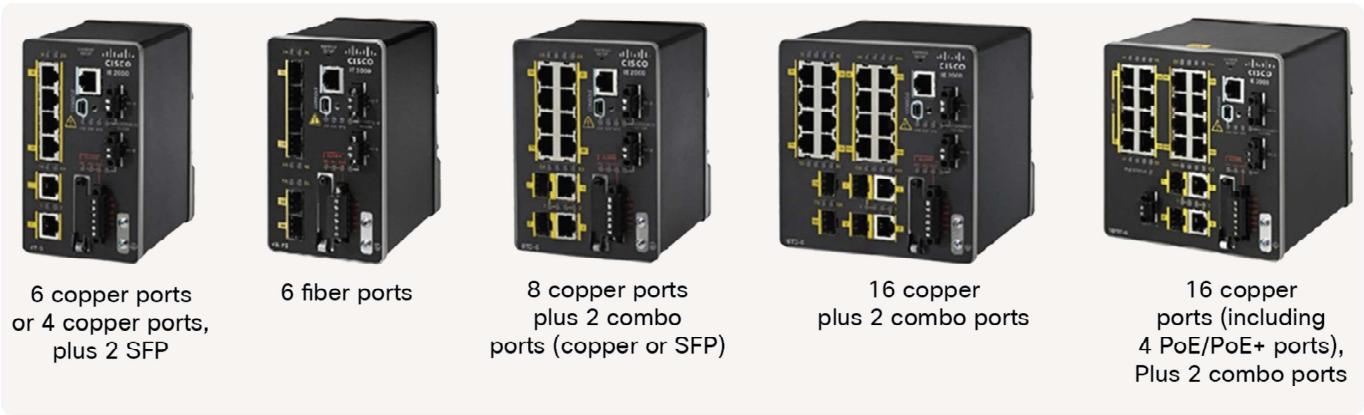


Figure 1.
Cisco Industrial Ethernet 2000 Series Switches

Table 1. Industrial Ethernet 2000 Series configurations

Product number	Total ports	RJ45 Copper ports	Combo ports (SFP or RJ45)	SFP ports	Software license	Type of possible upgrade	IEEE 1588	L2NAT	PoE/ PoE(+)	Conformal coating
IE-2000-4TS-L	6	4 FE		2 FE	LAN Lite	3				
IE-2000-4TS-B	6	4 FE		2 FE	LAN Base	1				
IE-2000-4T-L	6	6 FE			LAN Lite	3				
IE-2000-4T-B	6	6 FE			LAN Base	1				
IE-2000-4TS-G-L	6	4 FE		2 GE	LAN Lite	3				
IE-2000-4TS-G-B	6	4 FE		2 GE	LAN Base	1				
IE-2000-4T-G-L	6	4 FE, 2 GE			LAN Lite	3				
IE-2000-4T-G-B	6	4 FE, 2 GE			LAN Base	1				

Product number	Total ports	RJ45 Copper ports	Combo ports (SFP or RJ45)	SFP ports	Software license	Type of possible upgrade	IEEE 1588	L2NAT	PoE/ PoE(+)	Conformal coating
IE-2000-4S-TS-G-L	6			4 FE, 2 GE	LAN Lite	3				
IE-2000-4S-TS-G-B	6			4 FE, 2 GE	LAN Base	1, 3				
IE-2000-8TC-L	10	8 FE	2 FE		LAN Lite	3				
IE-2000-8TC-B	10	8 FE	2 FE		LAN Base	1				
IE-2000-8TC-G-L	10	8 FE	2 GE		LAN Lite	3				
IE-2000-8TC-G-B	10	8 FE	2 GE		LAN Base	1				
IE-2000-8TC-G-E	10	8 FE	2 GE		LAN Base	1, 2, 4	Yes	U*		
IE-2000-16TC-L	20	16 FE	2 FE	2 FE	LAN Lite	3				
IE-2000-16TC-B	20	16 FE	2 FE	2 FE	LAN Base	1				
IE-2000-16TC-G-L	20	16 FE	2 GE	2 FE	LAN Lite	3				
IE-2000-16TC-G-E	20	16 FE	2 GE	2 FE	LAN Base	1, 2, 4	Yes	U*		
IE-2000-16TC-G-X	20	16 FE	2 GE	2 FE	LAN Base	1, 2, 4	Yes	U*		Yes
IE-2000-8TC-G-N	10	8 FE	2 GE		Enhanced LAN Base	1, 2	Yes	Yes		
IE-2000-16TC-G-N	20	16 FE	2 GE	2FE	Enhanced LAN Base	1, 2	Yes	Yes		

Product number	Total ports	RJ45 Copper ports	Combo ports (SFP or RJ45)	SFP ports	Software license	Type of possible upgrade	IEEE 1588	L2NAT	PoE/ PoE(+)	Conformal coating
IE-2000-16PTC-G-L	18	16 FE	2 GE		LAN Lite	3			Yes	
IE-2000-16PTC-G-E	18	16 FE	2 GE		LAN Base	1, 2	Yes	U	Yes	
IE-2000-16PTC-G-NX	18	16 FE	2 GE		Enhanced LAN Base	1, 2	Yes	Yes	Yes	Yes

“Type of possible upgrade” legend:

- 1: LAN Base to IP Lite Cisco IOS Software Upgrade
- 2: Enhanced LAN Base to IP Lite Cisco IOS Software Upgrade
- 3: LAN Lite to LAN Base Cisco IOS Software Upgrade
- 4: LAN Base to Enhanced LAN Base Cisco IOS Software Upgrade and License Upgrade
- U: Upgradable to L2NAT via Enhanced Lan Base or IP Lite license

Table 2. Accessories and license upgrade PIDs

Product number	Description
SD-IE-1GB=	1 GB Ruggedized SD memory card (must be ordered, not included by default)
STK-RACK-DINRAIL=	19 in. DIN Rail mount kit
IE-LICENSE-SPARE	Spare license for software upgrade (L2 to L3 features, MRP ring, etc)
L-IE2000-L-B=	IE2000 LAN Lite to LAN Base e-license
L-IE2000-B-E=	IE2000 LAN Base to Enhanced LAN Base e-license
LIC-IE2000-IP-L=	IE2000 LAN Base or Enhanced LAN Base to IPLite e-license
LIC-IE2000-L-IP=	IE2000 LAN Lite to IPLite e-license
LIC-MRP-MANAGER=	MRP Ring Manager license
LIC-MRP-Client=	MRP Ring Client license
Wallmount-IE2k-04=	Wall mount kit accessory for IE2000 4-ports downlink PID
Wallmount-IE2k-08=	Wall mount kit accessory for IE2000 8-ports downlink PID

Product number	Description
Wallmount-IE2k-16=	Wall mount kit accessory for IE2000 16-ports downlink PID

Table 3. Product specifications

Description	Specification
Hardware	<ul style="list-style-type: none"> • 256 MB DRAM with ECC memory • IEEE 1588v2 FPGA • 64 MB on-board flash memory • 1GB removable SD flash memory card (optional) • Mini-USB connector
Alarm	<ul style="list-style-type: none"> • Alarm I/O: Two alarm inputs to detect dry contact open or close; one alarm output relay
Power consumption	<ul style="list-style-type: none"> • 4-port downlink models: 9.5–15 W • 8-port downlink models: 12.5–20 W • 16-port downlink models: 21–30 W • 4-port PoE/PoE+ models: 21–30 W (16-port base switch) and 4 PoE/PoE+ power requirement
Connectors and cabling	<ul style="list-style-type: none"> • 100BASE-FX MMF (2 km), -LX SMF (10 km) -ZX SMF (100 km), BX10 SMF (10 km) SFP and CWDM SFP-based ports: LC fiber connectors • 10/100/1000BASE-T ports: RJ-45 connectors, 4-pair Category 5 UTP cabling
Dimensions (H x W x D) including DIN rail	<ul style="list-style-type: none"> • IE-2000 6 ports (copper downlinks) chassis: 5.1"H x 2.95"W x 4.51"D in (130mm H x 74.9mm W x 115mm D) • IE-2000 6 ports (SFP downlinks) chassis: 5.1"H x 3.15"W x 4.51"D in (130mm H x 80mm W x 115mm D) • IE-2000 10 ports short chassis: 5.1"H x 3.6"W x 4.51"D (130mm H x 91.4mm W x 115mm D) • IE-2000 10 ports long chassis: 5.1"H x 3.6"W x 5.26"D (130mm H x 91.4mm W x 134mm D) • IE-2000 18–20 ports chassis: 5.1"H x 5.0"W x 5.26"D (130mm H x 127mm W x 134mm D)
Weight	<ul style="list-style-type: none"> • IE-2000 6 ports chassis: 2.45 lb (1.11 kg) • IE-2000 6 ports (SFP): 2.69 lb (1.22 kg) • IE-2000 10 ports short chassis: 2.75 lb (1.25 kg) • IE-2000 10 ports long chassis: 3.45 lb (1.56 kg) • IE-2000 18–20 ports chassis: 4.35 lb (1.97 kg)

Table 4. IE 2000 Series power supplies

Product number	Wattage	Rated nominal input operating range	PoE/PoE+ support ¹	More details
PWR-IE50W-AC=	50W	AC 100–240V/1.25A 50–60Hz or DC 125–250V/1.25A	No	Click here for more details on these DIN Rail power supplies ³
PWR-IE50W-AC-L= ²	50W	AC 100–240V/1.2A 50–60Hz	No	

Product number	Wattage	Rated nominal input operating range	PoE/PoE+ support ¹	More details
PWR-IE65W-PC-AC=	65W	AC 100-240V/1.4A 50-60Hz or DC 125-250V/1.0A	Yes	
PWR-IE65W-PC-DC=	65W	DC 24-48VDC/4.5A	Yes	
PWR-IE170W-PC-AC=	170W	AC 100-240V/2.3A 50-60Hz or DC 125-250V/2.1A	Yes	
PWR-IE170W-PC-DC=	170W	DC 12-54VDC/2.3A	Yes	
PWR-IE240W-PCAC-L= ²	240W	AC 100-240V/3.5A 50-60Hz	Yes	
PWR-IE480W-PCAC-L= ²	480W	AC 100-240V/6.0A 50-60Hz	Yes	

¹ The entire power budget for the switch and PoE ports needs to stay within the power supply.

² The power supplies are not certified for smart grid and hazardous locations. These power supplies are IP20 rated.

³ Power Supplies Datasheet Link: <https://www.cisco.com/c/en/us/products/collateral/switches/industrial-ethernet-switches/datasheet-c78-742180.html>

Table 5. Cisco IE 2000 software features

LAN Lite license	Baseline features
Layer 2 switching	IEEE 802.1, 802.3, 802.3at, 802.3af standard (see Table 8), VTPv2, NTP, UDLD, CDP, LLDP, Unicast MAC filter, Resilient Ethernet Protocol (REP), Media Redundancy Protocol (MRP) Ring (IEC 62439-2)
Security	SCP, SSH, SNMPv3, TACACS+, RADIUS Server/Client, MAC Address Notification, BPDU Guard, SPAN session
Multicast	IGMPv1, v2, v3 Snooping, IGMP filtering, IGMP Querier
Management	Fast Boot, Express Setup, Web Device Manager, CNA, Cisco Prime, LMS, MIB, SmartPort, SNMP, syslog
Industrial Ethernet	EtherNet/IP, Profinet v2

LAN Base license	Additional features
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LAN Base license	Additional features
Layer 2 switching	VTPv3, EtherChannel, Voice VLAN, Flexlink
Security	IPv4 Port-Security, DHCP Snooping, Dynamic ARP Inspection, IP Source Guard, 802.1x, Guest VLAN. MAC Authentication Bypass, 802.1x Multi-Domain Authentication, Storm Control, Trust Boundary, Access-List (ACL)
Quality of service	IPv4 Ingress Policing, Rate-Limit, Egress Queuing/Shaping, AutoQoS, PROFINET QoS
Management	Port-Based DHCP, Storm Control - Unicast, Multicast, Broadcast, SPAN Sessions, RSPAN, DHCP Server, Customized TCAM/SDM Size Configuration, Embedded Event Manager (EEM)
Industrial Ethernet	IEEE 1588 PTPv2
IPv4 routing	IPv4 static routing
IPv6 routing	IPv6 host support, HTTP over IPv6, SNMP over IPv6
Utility	MODBUS TCP/IP

Enhanced LAN Base	Additional features
Industrial management	Layer 2 switching with 1:1 static Network Address Translation (NAT)

IP Lite license	Additional features
IPv4 routing	RIP, OSPF, EIGRP, VRF Lite, PIM for L3 multicast routing including sparse (SM) and dense (DM) mode.
IPv6 Routing	IPv6 Static routing, OSPFv3
Security	FIPS 140-2
Embedded Event Manager	EEM feature enabled with IP Lite license

Table 6. Cisco IE 2000 Cisco DNA Essentials license features

Feature	Description
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Feature	Description
Elementry Management	Discovery, topology, inventory, software image management
Assurance	Health Dashboards – Network, Client, Basic Switch & Wired Client Health Monitoring, Compliance, Custom Reports, Device 360 & Wired Client 360
Automation	Cisco Network Plug-and-Play application

Table 7. Compliance specifications

Description	Specification
Safety certifications	<ul style="list-style-type: none"> • UL/CSA 60950-1 • EN 60950-1 • CB to IEC 60950-1 (with country deviations) • NOM to NOM-019-SCF1 (through partners and distributors) • CE Marking
Hazard location	<ul style="list-style-type: none"> • ANSI/ISA 12.12.01 (Class1, Div2 A-D) * • EN 60079-0, -15 ATEX Certificate (Class 1, Zone2 A-D) * <p>* Cabinet enclosure required</p>
EMC emissions and immunity compliance	<ul style="list-style-type: none"> • FCC 47 CFR Part 15 Class A • EN 55022A Class A • VCCI Class A • RoHS compliance • AS/NZS CISPR 22 Class A, AS/NZS CISPR 24 • CISPR11 Class A, CISPR22 Class A • ICES 003 Class A • KCC -Korea • CE Marking • C-Tick (Australia) • Russia certification • Brazil certification • IEC/EN/EN61000-4-2 (Electro Static Discharge), 15kV air/8kV contact • IEC/EN 61000-4-3 (Radiated Immunity, 10 and 20 V/m) • IEC/EN 61000-4-4 (Fast Transients - 4kV power line, 4kV data line) • IEC/EN 61000-4-5 (Surge 2 kV/1 kV) • IEC/EN 61000-4-6 (Conducted Immunity, 10 V/emf) • IEC/EN 61000-4-8 (Power Frequency Magnetic Field Immunity) • IEC/EN 61000-4-9 (Pulse Magnetic Field Immunity) • IEC/EN 61000-4-10 (Oscillatory Magnetic Field Immunity) • IEC/EN 61000-4-11 (AC power Voltage Immunity) • IEC/EN 61000-4-29 (Voltage Dips Immunity) • IEC/EN 61000-6-1 (Immunity for Light Industrial Environments) • IEC/EN 61000-6-2 (Immunity for Industrial Environments) • IEC/EN 61000-6-4 Class A • EN 61326
Shock and vibration	<ul style="list-style-type: none"> • IEC 60068-2-27 (Operational Shock: 30G 11ms, half sine) • IEC 60068-2-27 (Non-Operational Shock 55-70G, trapezoidal) • IEC 60068-2-6, IEC 60068-2-64, EN 61373 (Operational Vibration) • IEC 60068-2-6, IEC 60068-2-64, EN 61373 (Non-operational Vibration)

Description	Specification
Industry standards	<ul style="list-style-type: none">• UL508• CSA C22.2 No. 142• EN 61131-2 (EMC/EMI, environmental, mechanical)• Protective coating (specific models only)• Marine DnV• Substation KEMA (IEEE 1613, IEC 61850-3)• Railway EN 50155 (EMI/EMC, environmental, mechanical)• EN50121-3-2• EN50121-4• NEMA TS-2 (EMC, environmental, mechanical)• ABB Industrial IT certification• IP30• ODVA Industrial Ethernet/IP support• PROFINETv2.3 support
Corrosive testing	<ul style="list-style-type: none">• ISO-12944-6• IEC-60068-2-60
Humidity	<ul style="list-style-type: none">• IEC 60068-2-52 (salt fog mist, test Kb) marine environments• IEC 60068 -2-3• IEC 60068-2-30• Relative humidity: 5% to 95% non-condensing
Operating temperature	<ul style="list-style-type: none">• -40C to +70C (vented enclosure - 40 LFM Air Flow)• -40C to +60C (sealed enclosure - 0 LFM Air Flow)• -34C to +75C (fan or blower-equipped enclosure - 200 LFM Air Flow)• -40C to +85C (IEC 60068-2-2 Environmental Type Testing - 16 hours)• Operational altitude: Up to 15,000 ft
Storage temperature	<ul style="list-style-type: none">• -40 C to +85 C (storage temperature)• IEC 60068-2-14• Storage altitude: Up to 15,000 ft
Mean Time Between Failures (MTBF)	<ul style="list-style-type: none">• Mean time between failure: 374,052 hours (42.7 years)
Warranty	<ul style="list-style-type: none">• Five-year limited warranty on all IE-2000 HW PIDs and all IE Power Supplies defined in table 4 above. See link below for details on warranty

Table 8. Management and standards

Description

Specification

Specification

IEEE standards

- IEEE 802.1D MAC bridges, STP
- IEEE 802.1p Layer 2 COS prioritization
- IEEE 802.1q VLAN
- IEEE 802.1s Multiple Spanning-Trees
- IEEE 802.1w Rapid Spanning-Tree
- IEEE 802.1x Port Access Authentication
- IEEE 802.1AB LLDP
- IEEE 802.3ad Link Aggregation (LACP)
- IEEE 802.3af Power over Ethernet provides up to 15.4W DC power to each end device
- IEEE 802.3at Power over Ethernet provides up to 25.5W DC power to each end device

- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet Plus
- IEEE 802.3ah 100BASE-X SMF/MMF only
- IEEE 802.3x full duplex on 10Base-T
- IEEE 802.3 10BASE-T specification
- IEEE 802.3u 100BASE-TX specification
- IEEE 802.3ab 1000BASE-T specification
- IEEE 802.3z 1000BASE-X specification
- IEEE 1588v2 PTP Precision Time Protocol

RFC compliance

- RFC 768: UDP
- RFC 783: TFTP
- RFC 791: IPv4 protocol
- RFC 792: ICMP
- RFC 793: TCP
- RFC 826: ARP
- RFC 854: Telnet
- RFC 951: BootP
- RFC 959: FTP
- RFC 1157: SNMPv1
- RFC 1901,1902-1907 SNMPv2
- RFC 2273-2275: SNMPv3
- RFC 2571: SNMP Management
- RFC 1166: IP Addresses
- RFC 1256: ICMP Router Discovery

- RFC 1305: NTP
- RFC 1492: TACACS+
- RFC 1493: Bridge MIB Objects
- RFC 1534 DHCP and BootP interoperation
- RFC 1542: Bootstrap Protocol
- RFC 1643: Ethernet Interface MIB
- RFC 1757: RMON
- RFC 2068: HTTP
- RFC 2131, 2132: DHCP
- RFC 2236: IGMP v2
- RFC 3376: IGMP v3
- RFC 2474: DiffServ Precedence
- RFC 3046: DHCP Relay Agent Information Option
- RFC 3580: 802.1x RADIUS
- RFC 4250-4252 SSH Protocol

Description	Specification	Specification
Simple network management protocol (SNMP) MIB objects	<ul style="list-style-type: none"> • BRIDGE-MIB • CALISTA-DPA-MIB • CISCO-ACCESS-ENVMON-MIB • CISCO-ADMISSION-POLICY-MIB • CISCO-AUTH-FRAMEWORK-MIB • CISCO-BRIDGE-EXT-MIB • CISCO-BULK-FILE-MIB • CISCO-CABLE-DIAG-MIB • CISCO-CALLHOME-MIB • CISCO-CAR-MIB • CISCO-CDP-MIB • CISCO-CIRCUIT-INTERFACE-MIB • CISCO-CLUSTER-MIB • CISCO-CONFIG-COPY-MIB • CISCO-CONFIG-MAN-MIB • CISCO-DATA-COLLECTION-MIB • CISCO-DHCP-SNOOPING-MIB • CISCO-ENTITY-ALARM-MIB • CISCO-ENTITY-VENDORTYPE-OID-MIB • CISCO-ENVMON-MIB • CISCO-ERR-DISABLE-MIB • CISCO-FLASH-MIB • CISCO-FTP-CLIENT-MIB • CISCO-IF-EXTENSION-MIB • CISCO-IGMP-FILTER-MIB • CISCO-IMAGE-MIB • CISCO-IP-STAT-MIB • CISCO-LAG-MIB • CISCO-LICENSE-MGMT-MIB • CISCO-MAC-AUTH-BYPASS-MIB • CISCO-MAC-NOTIFICATION-MIB • CISCO-MEMORY-POOL-MIB • CISCO-PAE-MIB • CISCO-PAGP-MIB • CISCO-PING-MIB • CISCO-PORT-QOS-MIB • CISCO-PORT-SECURITY-MIB • CISCO-PORT-STORM-CONTROL-MIB • CISCO-PRIVATE-VLAN-MIB • CISCO-PROCESS-MIB • CISCO-PRODUCTS-MIB • CISCO-RESILIENT-ETHERNET-PROTOCOL-MIB • CISCO-RTTMON-ICMP-MIB • CISCO-RTTMON-IP-EXT-MIB • CISCO-RTTMON-MIB • CISCO-RTTMON-RTP-MIB • CISCO-MRP-MIB 	<ul style="list-style-type: none"> • CISCO-SNMP-TARGET-EXT-MIB • CISCO-STACK-MIB • CISCO-STACKMAKER-MIB • CISCO-STP-EXTENSIONS-MIB • CISCO-SYSLOG-MIB • CISCO-TCP-MIB • CISCO-UDLD-MIB • CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB • CISCO-VLAN-MEMBERSHIP-MIB • CISCO-VTP-MIB • ENTITY-MIB • ETHERLIKE-MIB • HC-RMON-MIB • IEEE8021-PAE-MIB • IEEE8023-LAG-MIB • IF-MIB • IP-FORWARD-MIB • IP-MIB • LLDP-EXT-MED-MIB • LLDP-MIB • NETRANGER • NOTIFICATION-LOG-MIB • OLD-CISCO-CHASSIS-MIB • OLD-CISCO-CPU-MIB • OLD-CISCO-FLASH-MIB • OLD-CISCO-INTERFACES-MIB • OLD-CISCO-IP-MIB • OLD-CISCO-MEMORY-MIB • OLD-CISCO-SYS-MIB< • OLD-CISCO-SYSTEM-MIB • OLD-CISCO-TCP-MIB • OLD-CISCO-TS-MIB • RMON-MIB • RMON2-MIB • SMON-MIB • SNMP-COMMUNITY-MIB • SNMP-FRAMEWORK-MIB • SNMP-MPD-MIB • SNMP-NOTIFICATION-MIB • SNMP-PROXY-MIB • SNMP-TARGET-MIB • SNMP-USM-MIB • SNMP-VIEW-BASED-ACM-MIB • SNMPv2-MIB • TCP-MIB • UDP-MIB

Table 9. SFP transceivers

Part number	Specification	SFP type	Max distance	Cable type	Temp range*	DOM support
GLC-FE-100FX-RGD=	100BASE-FX	FE	2km	MMF	IND	Yes
GLC-FE-100LX-RGD	100BASE-LX10	FE	10km	SMF	IND	Yes

Part number	Specification	SFP type	Max distance	Cable type	Temp range*	DOM support
GLC-FE-T-I=	100BASE-T	FE	100m	Copper	IND	NA
GLC-FE-100FX=	100BASE-FX	FE	2km	MMF	COM	No
GLC-FE-100LX=	100BASE-LX10	FE	10km	SMF	COM	No
GLC-FE-100EX=	100BASE-EX	FE	40km	SMF	COM	No
GLC-FE-100ZX=	100BASE-ZX	FE	80km	SMF	COM	No
GLC-FE-100BX-D=	100BASE-BX10	FE	10km	SMF	COM	No
GLC-FE-100BX-U=	100BASE-BX10	FE	10km	SMF	COM	Yes
GLC-SX-MM-RGD=	1000BASE-SX	GE	550m	MMF	IND	Yes
GLC-LX-SM-RGD=	1000BASE-LX/LH	GE	550m/10km	MMF/SMF	IND	Yes
GLC-ZX-SM-RGD=	1000BASE-ZX	GE	70km	SMF	IND	Yes
GLC-BX40-U-I=	1000BASE-BX40	GE	40km	SMF	IND	Yes
GLC-BX40-D-I=	1000BASE-BX40	GE	40km	SMF	IND	Yes
GLC-BX40-DA-I=	1000BASE-BX40	GE	40km	SMF	IND	Yes
GLC-BX80-U-I=	1000BASE-BX80	GE	80km	SMF	IND	Yes
GLC-BX80-D-I=	1000BASE-BX80	GE	80km	SMF	IND	Yes
GLC-SX-MMD=	1000BASE-SX	GE	550m	MMF	EXT	Yes
GLC-LH-SMD=	1000BASE-LX/LH	GE	550m/10km	MMF/SMF	EXT	Yes
GLC-EX-SMD=	1000BASE-EX	GE	40km	SMF	EXT	Yes
GLC-ZX-SMD=	1000BASE-ZX	GE	70km	SMF	EXT	Yes
GLC-BX-D=	1000BASE-BX10	GE	10km	SMF	COM	Yes
GLC-BX-U=	1000BASE-BX10	GE	10km	SMF	COM	Yes

Part number	Specification	SFP type	Max distance	Cable type	Temp range*	DOM support
CWDM-SFP-xxxx= (8 freq)	CWDM 1000BASE-X	GE		SMF	COM	Yes
DWDM-SFP-xxxx= (40 freq)	DWDM 1000BASE-X	GE		SMF	COM	Yes
SFP-GE-S=	1000BASE-SX	GE	550m	MMF	EXT	Yes
SFP-GE-L=	1000BASE-LX/LH	GE	550m/10km	MMF/SMF	EXT	Yes
SFP-GE-Z=	1000BASE-ZX	GE	70km	SMF	EXT	Yes
GLC-SX-MM=	1000BASE-SX	GE	550m	MMF	COM	No
GLC-LH-SM=	1000BASE-LX/LH	GE	550m/10km	MMF/SMF	COM	No
GLC-ZX-SM=	1000BASE-ZX	GE	70km	SMF	COM	Yes
GLC-T=	1000BASE-T	GE	100m	Copper	EXT	NA
GLC-TE=	1000BASE-T	GE	100m	Copper	EXT	NA
GLC-T-RGD=	1000BASE-T	GE	100m	Copper	IND	NA

Note: For DOM support and for first software release supporting SFP, refer to https://www.cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html

MMF = multimode fiber

SMF = Single-mode fiber

Figures 2–5 show the mechanical dimensions of the various IE 2000 models.

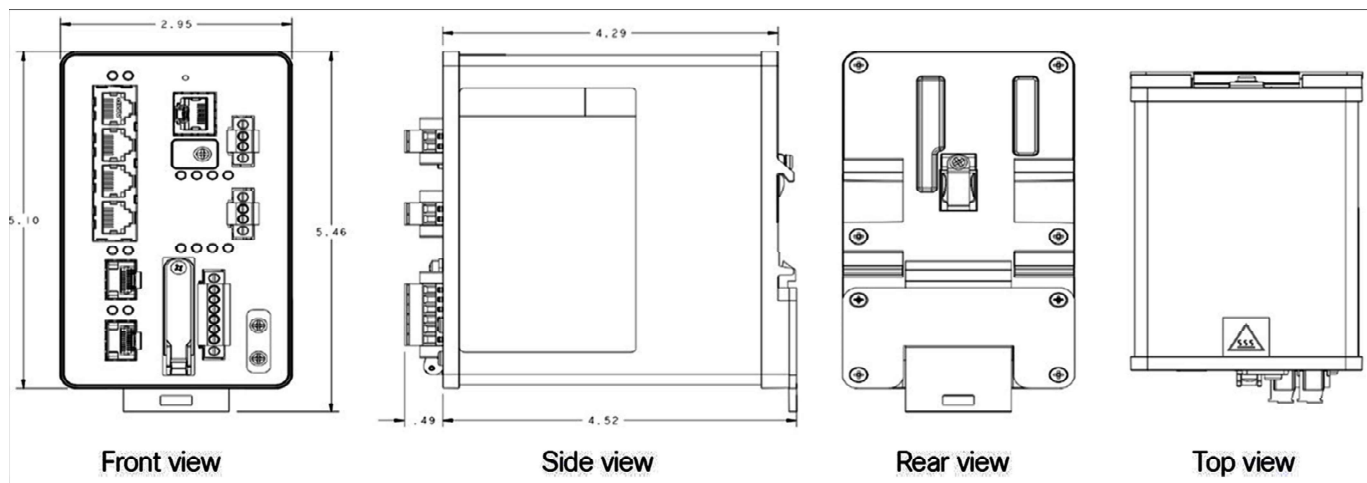


Figure 2.
IE2000 4 ports

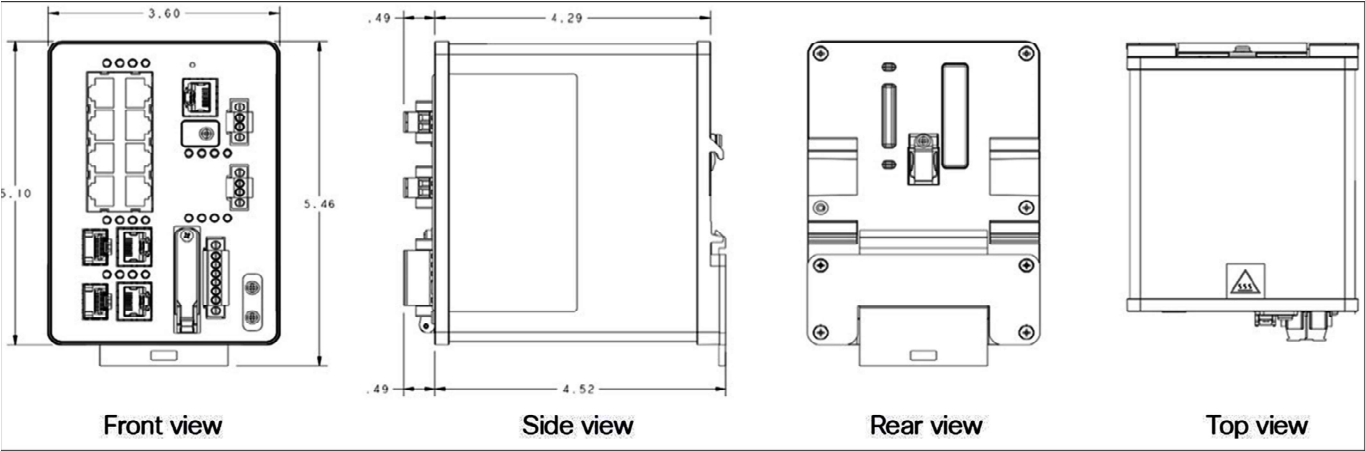


Figure 3.
IE2000 8 ports (-L, -B)

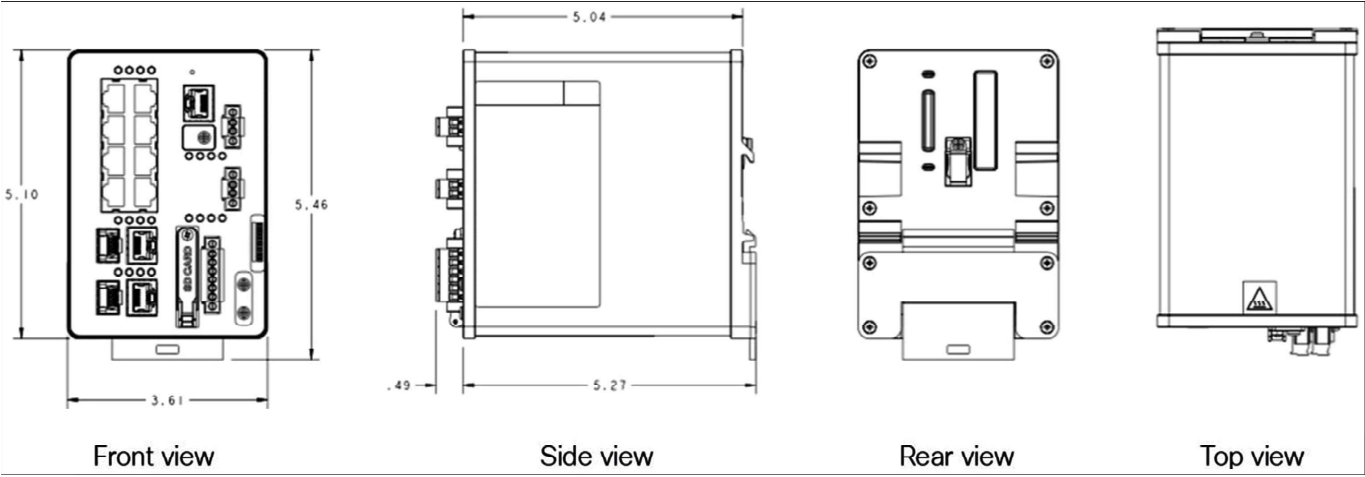


Figure 4.
IE2000 8 ports (-E, -N)

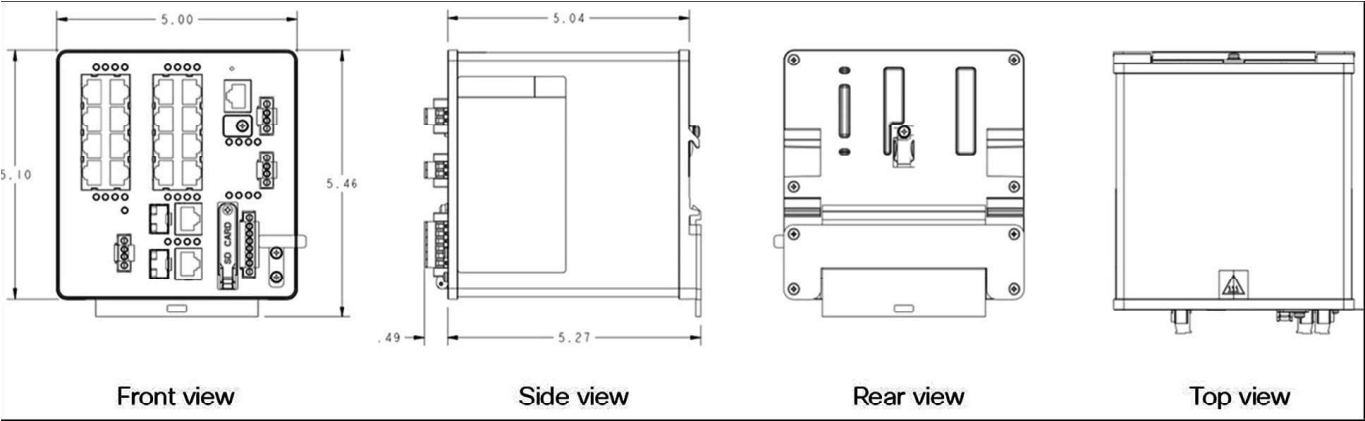


Figure 5.
IE2000 16 ports

Ordering information

Table 10. Ordering information

Part #	Description
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Part #	Description
IE-2000-4TS-L	IE2000 with 4 FE Copper ports and 2 FE SFP ports (Lan Lite)
IE-2000-4TS-B	IE2000 with 4 FE Copper ports and 2 FE SFP ports (Lan Base)
IE-2000-4T-L	IE2000 Switch with 6 FE Copper ports (Lan Lite License)
IE-2000-4T-B	IE2000 Switch with 6 FE Copper ports (Lan Base License)
IE-2000-4TS-G-L	IE2000 with 4 FE Copper ports and 2 GE SFP ports (Lan Lite)
IE-2000-4TS-G-B	IE2000 with 4 FE Copper ports and 2 GE SFP ports (Lan Base)
IE-2000-4T-G-L	IE2000 with 4 FE Copper ports and 2 GE Copper ports (Lan Lite)
IE-2000-4T-G-B	IE2000 with 4 FE Copper ports and 2 GE Copper ports (Lan Base)
IE-2000-4S-TS-G-L	IE2000 with 4 FE SFP ports and 2 GE SFP ports (Lan Lite)
IE-2000-4S-TS-G-B	IE2000 with 4 FE SFP ports and 2 GE SFP ports (Lan Base)
IE-2000-8TC-L	IE2000 with 8FE Copper ports and 2FE Combo (Lan Lite)
IE-2000-8TC-B	IE2000 with 8FE Copper ports and 2FE uplinks (Lan Base)
IE-2000-8TC-G-L	IE2000 with 8FE Copper ports and 2GE Combo (Lan Lite)
IE-2000-8TC-G-B	IE2000 with 8FE Copper ports and 2GE uplinks (Lan Base)
IE-2000-8TC-G-E	IE2000 with 8FE Copper ports and 2GE Combo (Lan Base) - 1588
IE-2000-16TC-L	IE2000 with 16FE Copper, 2FE SFP/T and 2FE SFP (Lan Lite)
IE-2000-16TC-B	IE2000 with 16FE Copper, 2FE SFP/T and 2FE uplinks (Lan Base)
IE-2000-16TC-G-L	IE2000 with 16FE Copper, 2GE SFP/T and 2FE SFP (Lan Lite)
IE-2000-16TC-G-E	IE2000 with 16FE Copper, 2GE SFP/T and 2FE SFP (Lan Base)
IE-2000-16TC-G-X	IE2000 with 16FE Copper, 2GE SFP/T and 2FE SFP (Lan Base) - Conformal Coating
IE-2000-8TC-G-N	IE2000 with 8FE Copper ports and 2GE Combo (Enhanced Lan Base)

Part #	Description
IE-2000-16TC-G-N	IE2000 with 16FE Copper, 2GE SFP/T and 2FE SFP (Enhanced Lan Base)
IE-2000-16PTC-G-L	IE2000 with 16FE Copper (4 PoE+) and 2GE uplinks (Lan Lite)
IE-2000-16PTC-G-E	IE2000 with 16FE Copper (4 PoE+) and 2GE uplinks (Lan Base)
IE-2000-16PTC-G- NX	IE2000 with 16FE Copper (4 PoE+) and 2GE uplinks (Enhanced Lan Base)
Cisco IE 2000 DNA licenses	
IE2000-DNA-E-L	Cisco DNA Essentials license (up to 12 ports)
IE2000-DNA-E-L-3Y	Cisco DNA Essentials 3 year term license (up to 12 ports) option
IE2000-DNA-E-L-5Y	Cisco DNA Essentials 5 year term license (up to 12 ports) option
IE2000-DNA-E-L-7Y	Cisco DNA Essentials 7 year term license (up to 12 ports) option
IE2000-DNA-E-M	Cisco DNA Essentials license (up to 24 ports)
IE2000-DNA-E-M-3Y	Cisco DNA Essentials 3 year term license (up to 24 ports) option
IE2000-DNA-E-M-5Y	Cisco DNA Essentials 5 year term license (up to 24 ports) option
IE2000-DNA-E-M-7Y	Cisco DNA Essentials 7 year term license (up to 24 ports) option

Warranty information

Warranty information is available at <http://www.cisco-servicefinder.com/WarrantyFinder.aspx>.

Cisco environmental sustainability

Information about Cisco’s environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the “Environment Sustainability” section of Cisco’s Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the “Environment Sustainability” section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Reference links to product-specific environmental sustainability information that is mentioned in relevant sections of this data sheet are provided in the following table:

Sustainability Topic	Reference
Power	
Power specifications and consumption	Table 8. IE2000 power specifications
Environmental Characteristics	
Operating temperature, industry standards, EMC emissions	Table 14. Compliance specifications
Material	
Unit Weight	Table 6. IE2000 physical configurations

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Service and support

Cisco is committed to reducing your Total Cost of Ownership (TCO). We offer a portfolio of technical support services to help ensure that products operate efficiently, remain highly available, and benefit from the most up-to- date system software. The services and support programs described in Table 10 are available as part of the Cisco Desktop Switching Service and Support solution and are available directly from Cisco and through resellers.

Table 11. Cisco services and support programs

Advanced services		
<ul style="list-style-type: none">• Cisco Total Implementation Solutions (TIS), available directly from Cisco• Cisco Packaged TIS, available through resellers• Cisco SMARTnet[®] and SMARTnet Onsite support, available directly from Cisco• Cisco Packaged SMARTnet support program, available through resellers• Cisco SMB Support Assistant	<ul style="list-style-type: none">• Project management• Site survey, configuration, and deployment• Installation, test, and cutover• Training• Major moves, adds, and changes• Design review and product staging• 24-hour access to software updates• Web access to technical repositories• Telephone support through the Cisco Technical Assistance Center (TAC)• Advance replacement of hardware parts	<ul style="list-style-type: none">• Supplements existing staff• Helps ensure that functions meet needs• Mitigates risk• Helps enable proactive or expedited issue resolution• Lowers TCO by taking advantage of Cisco expertise and knowledge• Reduces network downtime

Cisco Capital

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Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more.](#)

For more information

For more information about Cisco products, contact:

- United States and Canada: 800 553-6387

- Europe: 32 2 778 4242
- Australia: 612 9935 4107
- Other: 408 526-7209
- Cisco Industrial Ethernet 2000 (IE 2000) Series Switches: <https://www.cisco.com/en/US/partner/products/ps12451/index.html>.

Document history

New or revised topic	Described in	Date
Added ordering information table and spelled out a few acronyms	Entire Datasheet	Dec. 5, 2019

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Cisco Industrial Din-Rail Power Supplies



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The Cisco® portfolio of industrial din-rail power supplies offers a wide range of options to power your industrial Ethernet switches, industrial routers, and industrial computing products.

Product overview

The Cisco industrial din-rail power supplies offer a variety of rugged, reliable, and compact AC and DC power supply options to power Cisco's industrial Ethernet switches, industrial routers (including industrial gateways), and industrial computing products. Some key features include:

- Power supply options from 50W to 480W
- Operating temperatures ranging between -40° C and +85° C
- Din-rail mountable options
- Enablement of high capacity Power over Ethernet (PoE)
- Conformal coating options

Table 1 shows a list of all din-rail power supplies.

Table 1. Din-rail power supplies part numbers and descriptions

Part number	Product description	PoE / PoE+ support
PWR-IE50W-AC-L=	50W AC to DC power supply	No
PWR-IE50W-AC=	50W AC to DC or High DC to DC power supply	No
PWR-IE50W-AC-IEC=	50W AC to DC power supply with an IEC connector	No
PWR-IE65W-PC-AC=	65W AC to DC or High DC to DC power supply	Yes
PWR-IE65W-PC-DC=	65W Low DC to DC power supply	Yes
PWR-IE170W-PC-AC=	170W AC to DC or High DC to DC power supply	Yes
PWR-IE170W-PC-DC=	170W Low DC to DC power supply	Yes
PWR-IE240W-PCAC-L=	240W AC to DC power supply	Yes
PWR-IE480W-PCAC-L=	480W AC to DC power supply	Yes

Product specifications

Table 2 lists the input specification for Cisco industrial power supplies. Table 3 lists the output specifications.

Table 2. Input specifications

Product ID	Rated nominal input operating range	Supported input voltage operating range	Typical efficiency	Inrush current at 25C ambient	Remarks
PWR-IE50W-AC-L=	AC 100-240V/1.2A, 50-60Hz	AC 90-264V	88%	< 35A @ 115VAC and 70A @ 230VAC	Not approved for hazardous location installations
PWR-IE50W-AC=	AC 100-240V/1.25A, 50-60Hz or DC 125-250V/1.25A	AC 90-264V or DC 106-300V	80%	< 35A @ 115VAC and 70A @ 230VAC	Approved for Class 1, Div 2/Zone 2 installations
PWR-IE50W-AC-IEC=	AC 100-240V/1.25A, 50-60Hz	AC 90-264V	80%	< 35A @ 115VAC and 70A @ 230VAC	Not approved for hazardous location installations
PWR-IE65W-PC-AC=	AC 100-240V/1.4A, 50-60Hz or DC 125-250V/1.0A	AC 90-264V or DC 106-300V	85%	< 35A @ 115VAC and 70A @ 230VAC	Approved for Class 1, Div 2/Zone 2 installations CSA certified
PWR-IE65W-PC-DC=	DC 24-48VDC/4.5A	DC 18-60V	92%	4A@24VDC	Approved for Class 1, Div 2/Zone 2 installations
PWR-IE170W-PC-AC=	AC 100-240V/2.3A, 50-60Hz or DC 125-250V/2.1A	AC 90-264V or DC 106-300V	88%	< 35A @ 115VAC and 70A @ 230VAC	Approved for Class 1, Div 2/Zone 2 installations CSA certified
PWR-IE170W-PC-DC=	DC 12-54V/2.3A	DC 10.8-60V	88%	17.3A @ 12VDC	Approved for Class 1, Div 2/Zone 2 installations
PWR-IE240W-PCAC-L=	AC 100-240V/3.5A, 50-60Hz	AC 90-264V	91%	< 35A @ 115VAC and 230VAC	Not approved for hazardous location installations
PWR-IE480W-PCAC-L=	AC 100-240V/6A, 50-60Hz	AC 90-264V	92%	< 35A @ 115VAC and 230VAC	Not approved for hazardous location installations

Output specifications

Product ID	Nominal output voltage / adjustment range	Max output power	Holdup time at 100% load	Protections
PWR-IE50W-AC-L=	24VDC / 24-28VDC, 2.1A	50W	20ms	Over voltage protection Over current protection Over temperature protection Short circuit protection
PWR-IE50W-AC=	24VDC, 2.1A	50W	20ms	
PWR-IE50W-AC-IEC=	24VDC, 2.1A	50W	20ms	
PWR-IE65W-PC-AC=	54VDC, 1.2A	65W	10ms	
PWR-IE65W-PC-DC=	54VDC, 1.2A	65W		
PWR-IE170W-PC-AC=	54VDC, 1.3A	170W	20ms	
PWR-IE170W-PC-DC=	54VDC, 3.2A	170W	9ms (@10.8VDC) to 25.9ms (@ 60VDC)	
PWR-IE240W-PCAC-L=	54VDC / 48-56VDC, 4.5A	240W	20ms	
PWR-IE480W-PCAC-L=	54VDC / 48-56VDC, 8.9A	480W	20ms	

Table 3 lists the environmental specifications for Cisco industrial power supplies.

Table 3. Environmental specifications

Product ID	IP rating	Operating temperature	Storage temperature	Power de-rating	Operating humidity
PWR-IE50W-AC-L=	IP20	-20° C to +70° C	-40° C to +85° C	> 55° C de-rate power by 3.33%/° C < -10° C de-rate power by 2%/° C	5 to 95% RH (non-condensing)
PWR-IE50W-AC=	IP20	-40° C to +75° C	-40° C to +85° C	No derating	<95% RH (non-condensing)
PWR-IE50W-AC-IEC=	IP20	-20° C to +70° C	-40° C to +85° C	No derating	<95% RH (non-condensing)
PWR-IE65W-PC-AC=	IP20	-40° C to +75° C	-40° C to +85° C	No derating	<95% RH (non-condensing)
PWR-IE65W-PC-DC=	IP20	-40° C to +75° C	-40° C to +85° C	No derating	<95% RH (non-condensing)
PWR-IE170W-PC-AC=	IP20	-40° C to +75° C	-40° C to +85° C	No derating	<95% RH (non-condensing)
PWR-IE170W-PC-DC=	IP20	-40° C to +75° C	-40° C to +85° C	No derating	<95% RH (non-condensing)

Product ID	IP rating	Operating temperature	Storage temperature	Power de-rating	Operating humidity
PWR-IE240W-PCAC-L=	IP20	-40° C to +80° C	-40° C to +85° C	Vertical mounting: > 50° C de-rate power by 2.5%/° C Horizontal mounting: > 40° C de-rate power by 2.5%/° C	5 to 95% RH (non-condensing)
PWR-IE480W-PCAC-L=	IP20	-40° C to +75° C	-40° C to +85° C	Vertical mounting: > 50° C de-rate power by 2.5%/° C > 70° C de-rate power by 5%/° C	5 to 95% RH (non-condensing)

Safety standards / EMC

Product ID	Electric safety	EMC/ Industry standards
PWR-IE50W-AC-L=	CE (EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC) UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1 UL/cUL recognized to UL 62368-1 and CSA C22.2 No. 62368-1 UL/cUL listed to UL 508 and CSA C22.2 No. 107.1-01 CB scheme to IEC 60950-1, LPS NEC Class 2	EN 61000-3-2 Class A, EN 61000-3-3 EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61204-3, EN 55024 (EN 61000-4-2,3,4,5,6,8,11 LEVEL 3, Performance Criteria A) CISPR 22, EN 55022, CISPR 11, EN 55011, FCC part 15B
PWR-IE50W-AC=	EN60950-1: 2006+A1: 2010+A11: 2009 +A12: 2011+A2: 2013, EN61131-2: 2007 EN62368-1: 2014 + A11: 2017 IEC60950-1: 2005+A1: 2009+A2: 2013 IEC62368-1: 2014 EN 60079-0:2012 + A11:2013, EN 60079-15:2010 CE	EN61000-4-2, EN61000-4-4, EN61000-4-5, EN61000-4-8, EN 61000-4-11 IEC61000-4-11, IEC61000-4-12, IEC61000-4-16 FCC part 15B
PWR-IE50W-AC-IEC=	EN60950-1: 2006+A1: 2010+A11: 2009 +A12: 2011+A2: 2013, EN62368-1: 2014 + A11: 2017 CE	EN61000-4-2, EN61000-4-4, EN61000-4-5, EN61000-4-8, EN 61000-4-11 IEC61000-4-11, IEC61000-4-12, IEC61000-4-16 FCC part 15B

Product ID	Electric safety	EMC/ Industry standards
PWR-IE65W-PC-AC=	EN60950-1: 2006+A1: 2010+A11: 2009 +A12: 2011+A2: 2013, EN61131-2: 2007 EN62368-1: 2014 + A11: 2017 IEC60950-1: 2005+A1: 2009+A2: 2013 IEC62368-1: 2014 UL 508 Class 1, Div 2/ Zone 2 Hazardous location CE UL60950-1 and CSA60950-1 certified	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, IEC61000-3-3, EN/IEC61000-4-11, IEC61000-4-12, EN61131-2: 2007 EN 55032: 2012/AC: 2013, EN 55024: 2010 FCC part 15B IEC 61850-3, IEEE1613 EN 61000-6-4, EN 61000-6-2
PWR-IE65W-PC-DC=	EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 UL 508 Class 1, Div2/ Zone 2 Hazardous Location CCC CE	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN 55032:2015, EN 55024: 2010+A1:2015 EN55032:2015, EN 55024: 2010 FCC part 15B IEC 61850-3, IEEE1613 EN 61000-6-4, EN 61000-6-2
PWR-IE170W-PC-AC=	IEC60950-1: 2005+A1: 2009+A2: 2013 EN60950-1: 2006+A1: 2010+A11: 2009 +A12: 2011+A2: 2013, KCC mark, BSMI mark, CCC, CB Scheme, Class 1, Div2/ Zone 2 Hazardous Location CE UL60950-1and CSA60950-1 certified	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, IEC61000-3-3, EN/IEC61000-4-11, IEC61000-4-12 EN 55032: 2012/AC: 2013, EN 55024: 2010 FCC part 15B EN61131-2: 2007 IEC 61850-3, IEEE 1613
PWR-IE170W-PC-DC=	EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 UL 508 Class 1, Div 2/Zone 2 Hazardous location CE	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN 55032:2015, EN 55024: 2010+A1:2015 EN55032:2015, EN 55024: 2010 FCC part 15B IEC 61850-3, IEEE1613 EN 61000-6-4, EN 61000-6-2
PWR-IE240W-PCAC-L=	SIQ Bauart to EN 60950-1 UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1 UL/cUL recognized to UL 62368-1 and CSA C22.2 No. 62368-1 CB scheme to IEC 60950-1 UL 508 and CSA C22.2 No. 107.1-01 (File No. E315355) CSA C22.2 No. 107.1-01 (File No. 181564)	EN 61000-3-2 Class A, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN 61204-3, EN 55024 (EN 61000-4-2 LEVEL 3, Performance Criteria A and EN 61000-4-3,4,5,6,8,11,12 LEVEL 3, Performance Criteria A) CISPR 32, EN 55032, CISPR 11, EN 55011, FCC Title 47: Class A

Product ID	Electric safety	EMC/ Industry standards
PWR-IE480W-PCAC-L=	SIQ Bauart to EN 60950-1 UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1 UL/cUL recognized to UL 62368-1 and CSA C22.2 No. 62368-1 CB scheme to IEC 60950-1 UL 508 and CSA C22.2 No. 107.1-01 (File No. E315355) CSA C22.2 No. 107.1-01 (File No. 181564)	EN 61000-3-2 Class A, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN 61204-3, EN 55024 (EN 61000-4-2 LEVEL 3, Performance Criteria A and EN 61000-4-3,4,5,6,8,11,12 LEVEL 3, Performance Criteria A) CISPR 32, EN 55032, CISPR 11, EN 55011, FCC Title 47: Class A

Mechanical / Reliability data

Product ID	Dimensions (W x H x D)	Unit weight	MTBF (Telcordia SR-332)
PWR-IE50W-AC-L=	30 mm x 75 mm x 89.5 mm 1.18 in x 2.95 in x 3.52 in	0.39 lb (0.18 kg)	2,255,613 hours
PWR-IE50W-AC=	51 mm x 118 mm x 148 mm 2 in x 4.64 in x 5.82 in	1.41 lb (0.64 kg)	1,662,359 hours
PWR-IE50W-AC-IEC=	51 mm x 118 mm x 148 mm 2 in x 4.64 in x 5.82 in	1.43 lb (0.65 kg)	1,662,359 hours
PWR-IE65W-PC-AC=	66 mm x 148 mm x 118 mm 2.5 in x 5.82 in x 4.64 in	2.64 lb (1.2 kg)	2,488,401 hours
PWR-IE65W-PC-DC=	66 mm x 150 mm x 117 mm 2.59 in x 5.90 in x 4.60 in	2.60 lb (1.18 kg)	4,802,673 hours
PWR-IE170W-PC-AC=	96 mm x 150 mm x 146 mm 3.77 in x 5.90 in x 5.74 in	3.88 lb (1.76 kg)	2,384,975 hours
PWR-IE170W-PC-DC=	114 mm x 150 mm x 146 mm 4.48 in x 5.90 in x 5.74 in	3.68 lb (1.67 kg)	2,164,641 hours
PWR-IE240W-PCAC-L=	85 mm x 121 mm x 124.1 mm 3.34 in x 4.76 in x 4.88 in	2.11 lb (0.96 kg)	1,579,900 hours
PWR-IE480W-PCAC-L=	144 mm x 121 mm x 118.6 mm 5.66 in x 4.76 in x 4.66 in	3.02 lb (1.37 kg)	1,058,750 hours

Ordering information

Table 4 provides ordering information for Cisco industrial power supplies.

Table 4. Ordering information

Part #	Product description
PWR-IE50W-AC-L=	50W AC to DC power supply
PWR-IE50W-AC=	50W AC to DC power supply
PWR-IE50W-AC-IEC=	50W AC to DC power supply with IEC connector
PWR-IE65W-PC-AC=	65W AC to DC power supply
PWR-IE65W-PC-DC=	65W DC to DC power supply
PWR-IE170W-PC-AC=	170W AC to DC power supply
PWR-IE170W-PC-DC=	170W DC to DC power supply
PWR-IE240W-PCAC-L=	240W AC to DC power supply
PWR-IE480W-PCAC-L=	480W AC to DC power supply

Warranty information

Cisco offers a five-year limited warranty on all industrial Ethernet power supplies. Warranty information is available at <https://www.cisco-servicefinder.com/warrantyfinder.aspx>.

Cisco environmental sustainability

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Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Reference links to product-specific environmental sustainability information that is mentioned in relevant sections of this data sheet are provided in the following table:

Sustainability Topic	Reference
Power	
Power specifications and consumption	Table 1. Din-rail power supplies part numbers and descriptions
Environmental Characteristics	
Operating temperature, industry standards, EMC emissions	Table 3. Environmental Specifications
Material	
Unit Weight	Table 3. Environmental Specifications - Mechanical / Reliability data

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Document history

New or Revised Topic	Described In	Date
Removed IP67 power supplies from this datasheet as they are not “DIN Rail” mountable	Entire Datasheet	Dec. 5, 2019

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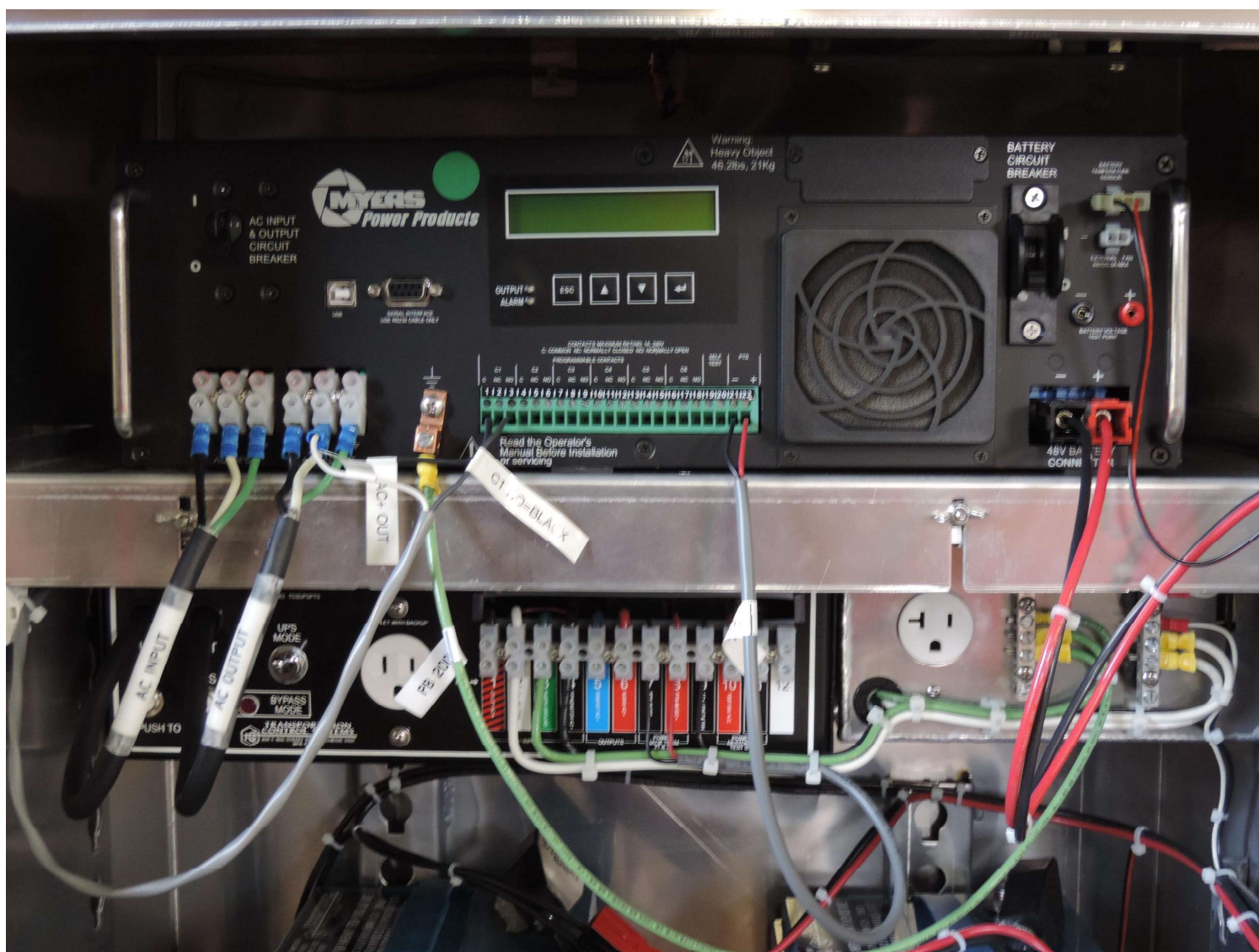
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Search Results : "685-002-008"





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by Transportation Control Systems (TCS) (Manufacturer Website)

Model: MP2000-ITS/PIGGYBACK SERIES

APL Certification

- 685-002-008 (Approval Date: 4/19/2006) (Service Life Expectancy:)
BABA Eligible: Eligible

Product Types

- Uninterruptible Power Supply

Resource Links

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- Traffic Engineering & Research Lab Matrices
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Manufacturer Detail

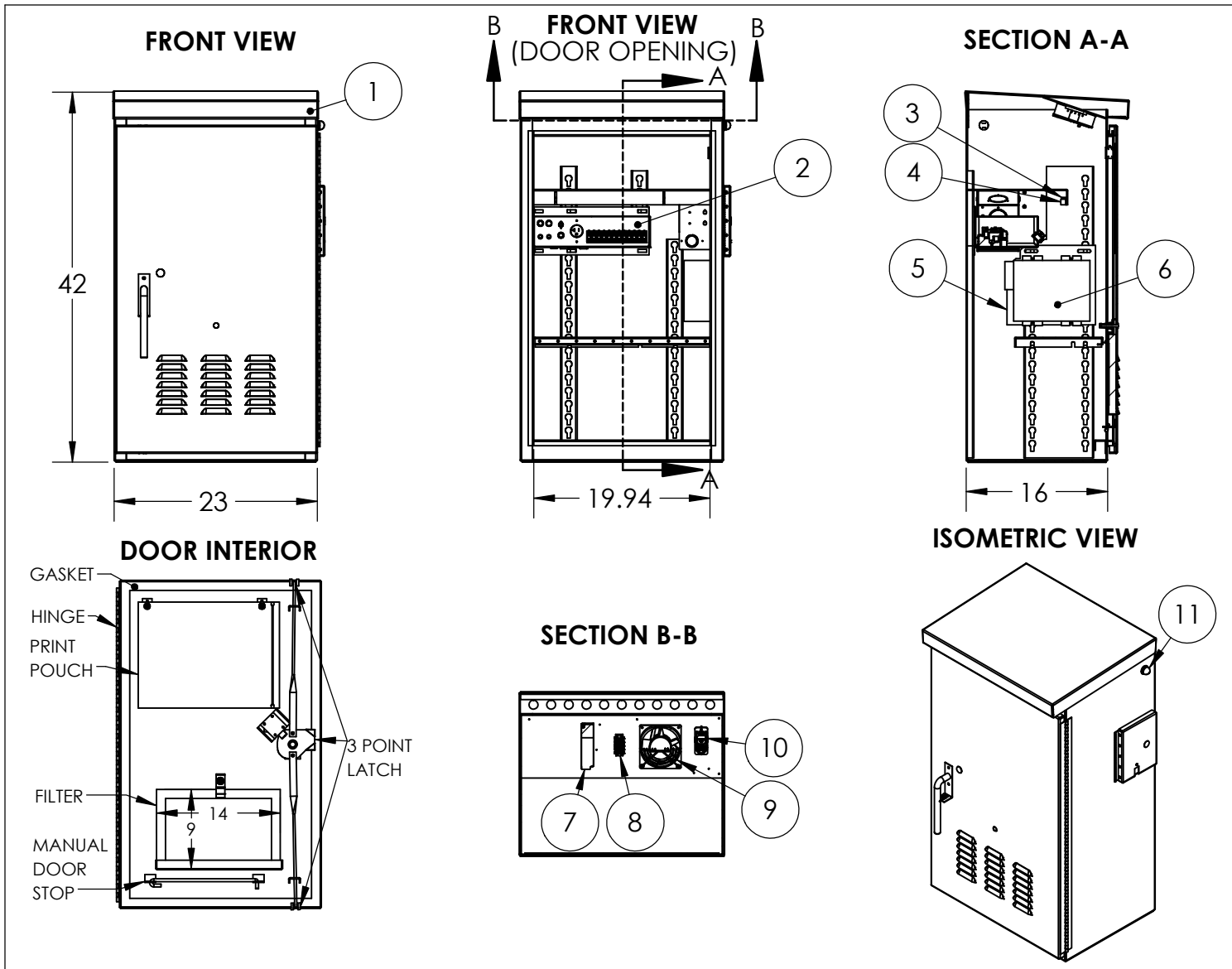
Transportation Control Systems (TCS)

1030 S 86th St


Tampa FL 33619

813-630-2800

[Contacts](#)[Report Product Deficiency](#)**Other products in product type Uninterruptible Power Supply**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	B422316G2D2GS-SI	PIGGY BACK CABINET WITH GENERATOR	1
2	TCSUPSPTS	UPS POWER TRANSFER SWITCH	1
3	SMFV0-HS-CW-24T1-1	UNDER LAPTOP DRAWER LED MOUNT	1
4	EHA-11	LED, 1FT HARD STRIP	1
5	SMFPM3-20-48	BATTERY CHARGER MOUNTING PLATE	1
6	PM3-20-48	POWER CONVERTER / CHARGER 70VF	1
7	ECP-10	SUPPLY, POWER 17W 24VDC .7A	1
8	TB-51	TBLK, 4P DBL 6-32 .4375 SP	1
9	FAN100	FAN 4" 107CFM 120VAC QUALTEK F	1
10	THERM-3	THERMOSTAT 80F-170F SPST 15A 1	1
11	ECL-07	LED, PNL MT 1" DOME RED 125VAC	1

		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	NAME DRAWN BT 10/28/2020 CHECKED ENG APPR. MFG APPR. Q.A.	DATE	 TRANSPORTATION CONTROL SYSTEMS					
						TITLE ZLEE				
		MATERIAL 5052-H32 AL				CUSTOMER				
			PROPRIETARY AND CONFIDENTIAL <small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TRANSPORTATION CONTROL SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TRANSPORTATION CONTROL SYSTEMS IS PROHIBITED.</small>			LOCATION		PROJECT		
NEXT ASSY	USED ON	FINISH MILL				SIZE A	SALES ORDER	DWG. NO.	ZLEE	REV.
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:12	WEIGHT: 95.20 pounds	SHEET 1 OF 1		

UPS/BBS SYSTEMS

MP2000/MP2000E



- ◆ 1500 watt; 2000VA
- ◆ Local Keypad Programmability - including status monitoring, setting/testing of various parameters, dry contact programming, and more. No laptop necessary.
- ◆ Backlit LCD Displays - easily readable in all light conditions.
- ◆ Six Fully Programmable Dry Contacts - provides greater control of system components and functions.
- ◆ Remote Access through a serial interface via an RS232, USB port or Ethernet communication card.
- ◆ Provides fully interactive program and status reporting using built-in, Windows™-compatible software.
- ◆ Time/Date Stamp of Events and Alarms - up to 100 events with download and print capability.
- ◆ Data Dump Commands available through RS232 port, USB port or Ethernet communication card.

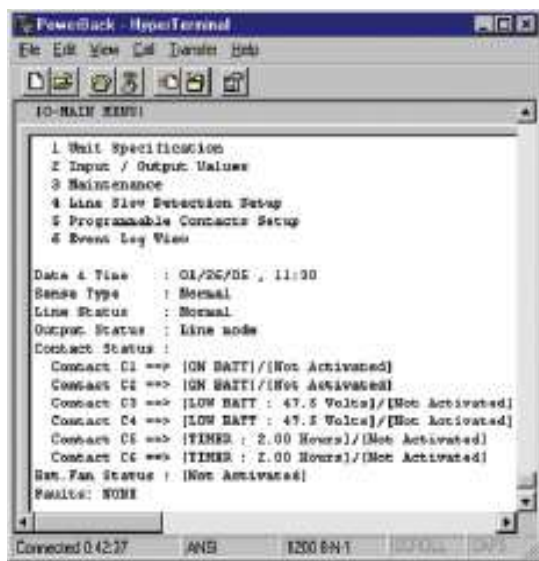


FEATURES

	MP2000	MP2000E
Output Power (VA)	2000	2000
Active Output Power (Watts)	1500	1500
Transient voltage protection from damaging line spikes	♦	♦
Low harmonic AC sine wave output	♦	♦
Intelligent Buck and Boost Operation for brownout and surge protection	♦	♦
Noise suppression, FCC Class A	♦	♦
Multiple mounting configurations	♦	♦
6 Fully programmable dry contacts for control and reporting functionality	♦	♦
Backlit LCD display, 2 row by 20 characters Black on Green	♦	♦
Time/Date stamp of events and alarms	♦	♦
Intelligent remote communication capability via RS232, USB	♦	♦
Ethernet SNMP Card		♦

STATUS & EVENT REPORTING

MP Series UPS provides fully interactive program and status reporting capabilities via built-in, Windows™-compatible software. Whether using this feature for set-up, maintenance, or as a link to your traffic control command center, the ability to view moment-by-moment operations will enhance your traffic engineering and supervisory control capabilities.



ADVANCED DISPLAY READOUT

Myers MP Series™ provides you with the tools to monitor and maintain your system at peak performance. The MP Series utilizes a bright LCD display and touch keys to provide real time information including input/output status, battery percentages, online and load status, time/date stamp of events, and more. Easy-to-read scrolling menus assist you with maintenance and programming of functions.



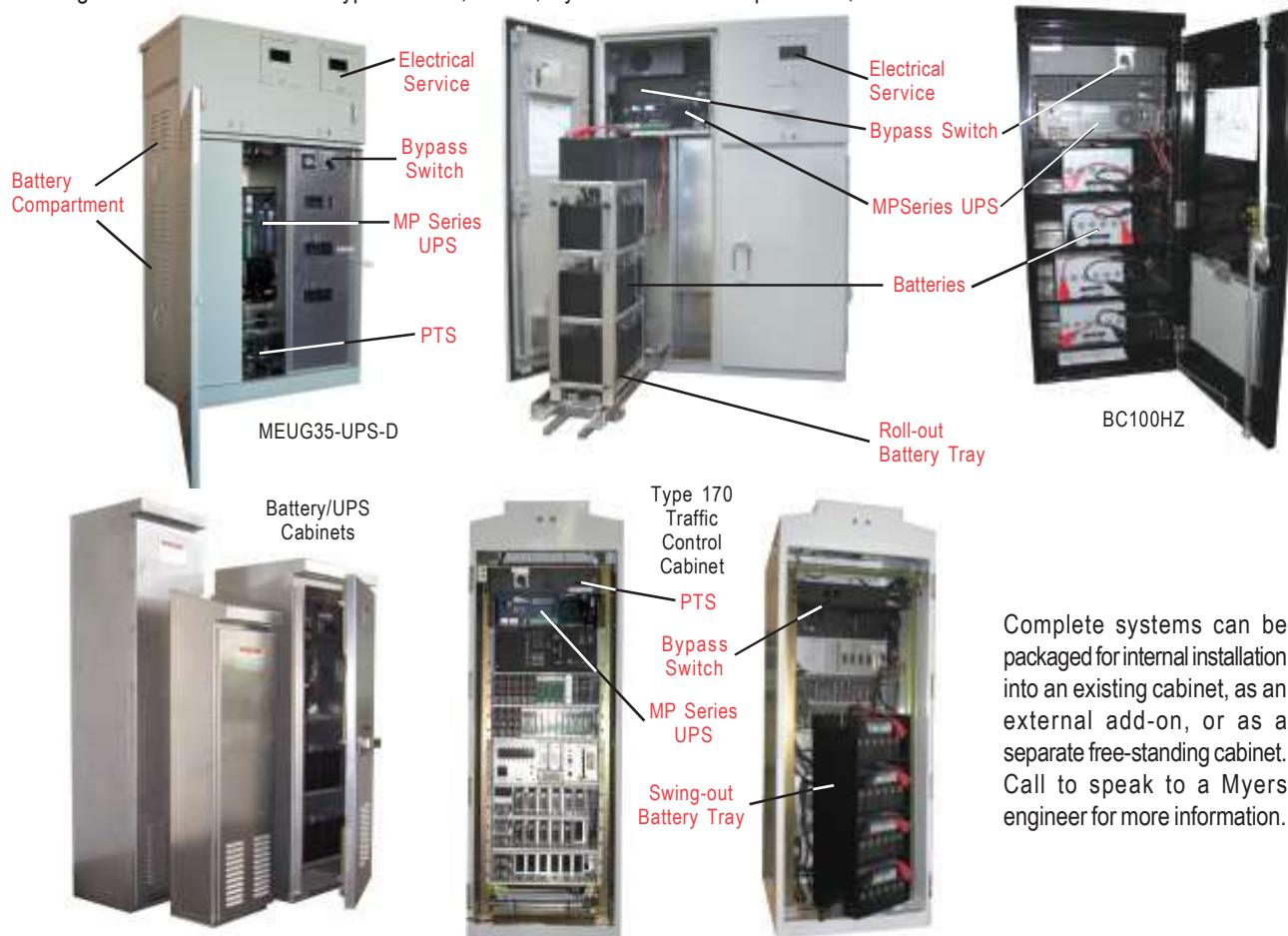
CONNECTIVITY

Effective system integration and communications depends on connectivity. In addition to AC input/output connectors, Myers MP Series provides NC/NO dry contacts (fully programmable), giving you greater versatility in powering external system components during normal or battery backup operations. An RS232 serial port, USB, or Ethernet card allows for complete remote communications.



INSTALLATION CONFIGURATIONS

With MP Series UPS you not only get the right UPS components, you also benefit from Myers Power Products' years of experience in cabinet design to ensure your entire battery backup system is configured to precisely meet your needs. Standard and custom configurations are available for Type 170/332, NEMA, Myers MEUG service pedestals, and more.



BATTERY OPTIONS

MP Series UPS batteries are specifically designed for UPS applications and are completely sealed and maintenance-free. These absorbed glass mat, valve regulated lead acid (AGM/VRLA) batteries can withstand extreme temperatures, are rated non-spillable by ICAO IATA/DOT and available in a variety of ampere-hour ratings. Battery harnesses with "quick-connect" cables are included with complete system solutions packages. Sample run times are listed below based on a single string (4 batteries) at 25°C.



TOTAL POWER REQUIRED (WATTS)	1 STRING 33AH @25C	1 STRING 55AH @25C	1 STRING 65AH @25C	1 STRING 79AH @25C	1 STRING 92AH @25C	1 STRING 105AH @25C
1500	0 hr. 30 min.	0 hr. 50 min.	1 hr. 05 min.	1 hr. 20 min.	1 hr. 45 min.	2 hr. 00 min.
1200	0 hr. 40 min.	1 hr. 05 min.	1 hr. 20 min.	1 hr. 40 min.	2 hr. 15 min.	2 hr. 30 min.
1000	0 hr. 55 min.	1 hr. 20 min.	1 hr. 40 min.	2 hr. 00 min.	2 hr. 40 min.	3 hr. 05 min.
875	1 hr. 11 min.	1 hr. 50 min.	2 hr. 15 min.	2 hr. 40 min.	3 hr. 30 min.	4 hr. 00 min.
750	1 hr. 17 min.	2 hr. 05 min.	2 hr. 35 min.	3 hr. 05 min.	3 hr. 55 min.	4 hr. 30 min.
650	1 hr. 27 min.	2 hr. 25 min.	2 hr. 50 min.	3 hr. 20 min.	4 hr. 35 min.	5 hr. 10 min.
550	1 hr. 40 min.	3 hr. 00 min.	3 hr. 20 min.	3 hr. 40 min.	5 hr. 10 min.	5 hr. 55 min.
450	1 hr. 55 min.	3 hr. 30 min.	3 hr. 45 min.	4 hr. 05 min.	5 hr. 45 min.	6 hr. 45 min.
350	2 hr. 10 min.	4 hr. 05 min.	4 hr. 10 min.	4 hr. 30 min.	6 hr. 25 min.	7 hr. 25 min.
250	2 hr. 25 min.	4 hr. 40 min.	4 hr. 47 min.	4 hr. 55 min.	7 hr. 05 min.	8 hr. 05 min.
100	6 hr. 00 min.	9 hr. 10 min.	12 hr. 30 min.	15 hr. 50 min.	20 hr. 00 min.	24 hr. 10 min.

Note: Stated run times are approximate. Actual run times depend on load requirements, frequency of operation, and temperature. For more details, refer to Myers publication *Battery Options and Run Time Calculations*.

STANDARD FEATURES

- ◆ Battery backup for signalized intersections.
- ◆ Fits in all types of Traffic Cabinets or can be mounted in a Custom Enclosure or Electrical Service Pedestal.
- ◆ Low harmonic AC sinewave output.
- ◆ Fully programmable AC threshold voltages; ie, NEMA, Caltrans or Custom.
- ◆ Transient voltage protection from damaging line spikes.
- ◆ External connections are front panel accessible.
- ◆ RS232 and USB serial interface for easy programmability.
- ◆ Intelligent Buck and Boost Operation for brownout and surge protection.
- ◆ Battery Monitoring System (optional).
- ◆ Power conditioning insures reliable power.
- ◆ Back up power provided by sealed battery modules.
- ◆ Temperature-compensated charging maximizes battery life in harsh, outside environments.
- ◆ Noise suppression, FCC Class A
- ◆ Meets or exceeds Caltrans, TXDOT and GDOT UPS/BBS specifications.
- ◆ Multiple mounting configurations.
- ◆ UL/CSA Listed.

THREE MODES OF BACKUP POWER ARE AVAILABLE

Normal Operation

Normal Operation supporting full functions for intersections not exceeding module's specified output.*

Flash operation

Red/Amber flash operations for intersections that exceed module's specified output for Normal Operation.*

Normal/Flash Combo

Provides normal operation then reverts to flash after 2 hours or when 40% battery capacity is reached (factory default), thereby prolonging operating time.* MP Series UPS are fully programmable including duration, percentage, and dry contact assignment.

** Total load cannot exceed unit's maximum output for any operation.*

OPTIONS

- ◆ Power Transfer Switch
- ◆ Manual Bypass Switch
- ◆ Generator Kit: bypass switch, receptacle w/cover
- ◆ Separate battery enclosures
- ◆ Battery heater mats
- ◆ Remote Battery Monitoring System
- ◆ Remote UPS Management Systems
- ◆ Ethernet Monitoring Software

OUTPUT RATINGS

MP-2000	Output Power (VA)	2000
	Active Output Power (watts)	1500
MP-2000E	Output Power (VA)	2000
	Active Output Power (watts)	1500

DIMENSIONS

MP2000:	Width (inches/mm)	17 / 432
	Height (inches/mm)	5.25 / 133
	Depth (inches/mm)	11 / 279
	Weight (lbs/kg)	46.2 / 21
MP2000E	Width (inches/mm)	17 / 432
	Height (inches/mm)	5.25 / 133
	Depth (inches/mm)	11 / 279
	Weight (lbs/kg)	46.2 / 21
PTS (Power Transfer Switch):	Width (inches/mm)	4.75 / 121
	Height (inches/mm)	4.6 / 117
	Depth (inches/mm)	6.5 / 165
	Weight (lbs/kg)	7 / 3

BATTERY RUN TIME

Battery run time and recharging depends on load requirements and battery configurations. Refer to *Battery Options and Run Time Calculations* for more details.

MP Series UPS systems are 48V, 4-String Battery systems. For custom configurations contact Myers Power Products.

GENERAL SPECIFICATIONS

Input/Output	Voltage (VAC) nominal	120
	Frequency (Hz) nominal	60
Input Current (A)	maximum	20
Input Voltage Variation		-23% to +17%
Voltage Waveform		Sine
Typical Line Efficiency %		95-97
Typical Output Voltage		<3%
Total Harmonic Distribution		<3% THD
Max Charge Current		10 (ADC)
Max Transfer Time		60 (ms)
Audible Noise		<32 at 1m (dBA)
Unit Operating Temp.		-37°C to +74°C
Battery Operating Temp.		-25°C to +74°C
Lightning / Surge Protection:		Passes ANSI/IEEE C.62.41/C.62.45 Cat A & B



"Invest in the power of Myers."

2.3.6 Ethernet Modem

MP2000E models with serial numbers that begin with MC (e.g. MC18E16553) have either an embedded HTML Ethernet card or an Ethernet-to-serial adapter card (or no Ethernet card).

The HTML Ethernet card, shown in Figure 6-38, interfaces with a web browser.

Yellow LED flashing indicates the card is booting up

Yellow LED steady indicates boot up complete

Red LED flashing indicates serial communication loss between the card and the MP2000E

(Any RS232/USB connection to the MP2000E front panel directs serial communication

from the HTML card to the MP2000E front panel RS232/USB connection. Recovery is automatic once the RS232/USB connection is undone.)

Red LED steady indicates the HTML card is in alarm

Green LED steady normal operation.

The Ethernet RJ45 Connector features a green LED auto-sense 10 / 100 Mbps Indicator and yellow LED link indicator and uses CAT5E cabling.

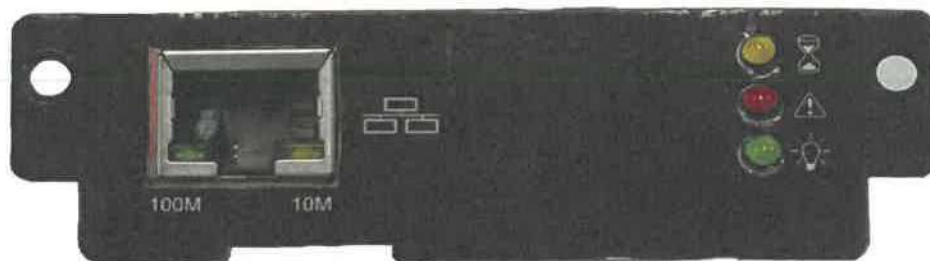


Figure 6-38: NetAgent Embedded HTML Ethernet Card Front Panel

The Ethernet-to-serial-adapter, shown in Figure 6-39, interfaces with a terminal emulator.

(such as Hyperterminal) and with Myers MEMS software.



Figure 6-39: Ethernet-to-Serial Adapter Card Front Panel.

The Ethernet RJ45 Connector features a green LED auto-sense 10 / 100 Mbps Indicator and yellow LED link indicator and uses CAT5E cabling.

Interior views of each card type are shown in Figure 6-40. These are as follows:

- Left: NetAgent HTML Ethernet Card. This card is used with MP2000E models with serial numbers that begin with MC. The coin battery maintains the Ethernet card clock.

- **Center: Serial-to-Ethernet Adapter Card (long version).** This card is used with MP2000E models with serial numbers that begin with MC.
- **Right: Serial-to-Ethernet Adapter Card (short version).** This card is used with MP2000E models with serial numbers that begin with MD.

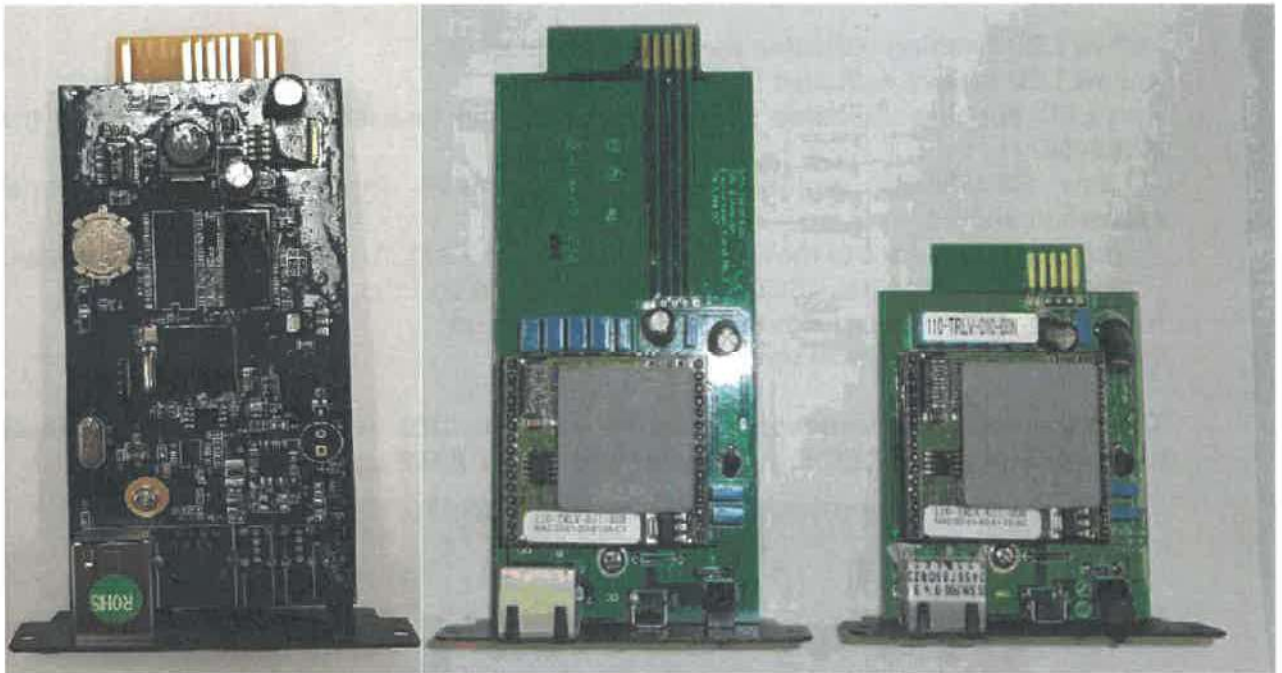


Figure 6-40: HTML Ethernet and Ethernet-to-Serial Adapter Card Interior Views

2.3.6.1 NetAgent Ethernet Card Default IP / Default Logon

The procedures described in this section restore the factory default Ethernet card settings.

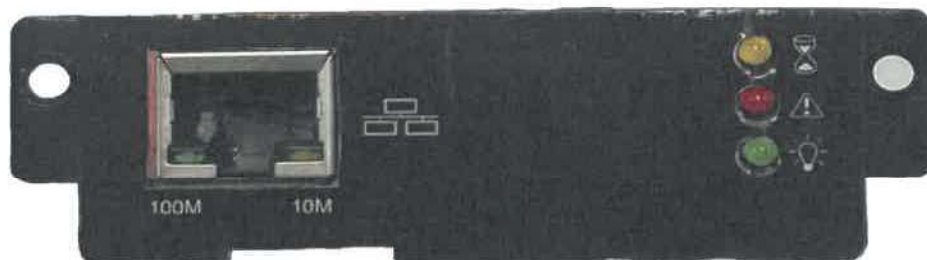


Figure 6-41: NetAgent HTML Ethernet Card Front Panel

HTML Ethernet Card

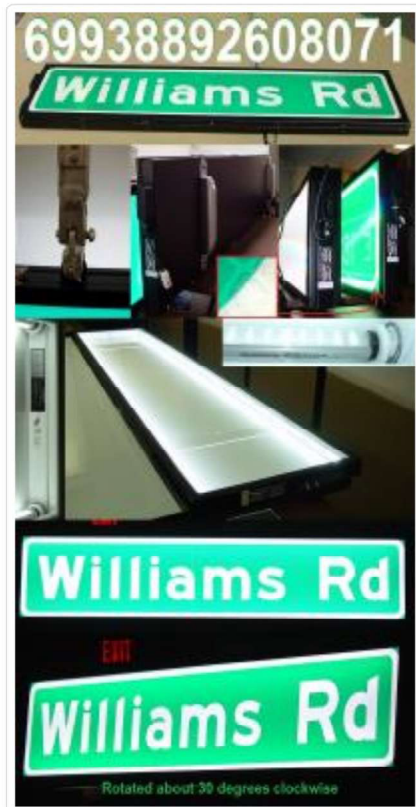
Default IP: 192.168.1.51
Subnet Mask: 255.255.255.0

Default Login: admin
Default Password: user

The MP2000E LCD Status menu displays the IP address, Subnet Mask address, and Gateway address of the HTML Card



Search Results : "700-015-024"







Transportation Control Systems (TCS), Internally Illuminated Sign, LED Street Name Sign, BriteLite TCSSIGNBL Series (APL Product)

by Transportation Control Systems (TCS) (Manufacturer Website)

Model: BriteLite TCSSIGNBL Series

APL Certification

- 700-015-024 (Approval Date: 7/9/2012) (Service Life Expectancy:)
BABA Eligible: Eligible

Product Types

- Illuminated Sign - Internally Illuminated Sign

Resource Links

- [FDOT Standard Specifications for Road and Bridge Construction](#)

- Traffic Engineering and Operations Manual (TEM)
- Traffic Engineering & Research Lab Matrices
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

There are no items to display.

Documents

There are no items to display.

Comments

There are no items to display.

Manufacturer Detail

Transportation Control Systems (TCS)

1030 S 86th St

Tampa FL 33619

813-630-2800

[Contacts](#)[Report Product Deficiency](#)

Other products in product type Illuminated Sign - Internally Illuminated Sign



Search Results : "715-005-024"



Mongoose Medium LED (APL Product)

by Holophane Lighting

Model: MGLEDM

APL Certification

- 715-005-024 (Approval Date: 3/4/2020) (Service Life Expectancy:)

BABA Eligible: Eligible

Product Types

- LED Luminaire, (Conventional)

Resource Links

- FDOT Standard Specifications for Road and Bridge Construction
- Luminaire Compliance Matrices (under Quick Links - Forms)
- Build America, Buy America Form

Random Sampling Frequency

There are no items to display.

Limitations

- N/A

Documents

There are no items to display.

Comments

There are no items to display.

Manufacturer Detail

Holophane Lighting
2714 Pershing Ave
Orlando FL 32806
407-923-9557

[Contacts](#)[Report Product Deficiency](#)**Other products in product type LED Luminaire, (Conventional)**

Catalog Number	
Notes	Type

MGLEDM

Mongoose Medium LED



The Mongoose Medium LED offset roadway and area lighting product provides significant energy and maintenance savings vs. HID luminaires. It offers the ultimate in application flexibility with a uniquely designed advanced optical system and attractive appearance. This combined with multiple lighting distributions, mounting options and the ability to tilt the fixture offers unequalled performance in a diverse set of applications ranging from interstates and parking lots.

Mechanical

- Rugged grade A360 diecast aluminum (<1% copper)
- Tool-less access with stainless steel latches
- Terminal block in arm
- Rigorous 5-stage pretreatment polyester topcoat to ensure maximum durability that achieves a scribe creepage rating of 8 after 5,000 hours of salt spray
- Removable "power tray" facilitates maintenance
- Corrosion resistant stainless-steel latches ensure secure closure over the long fixture life
- Horizontal mast arms or vertical tenon (VH) and universal mounting to round and square poles (UN) options
- Universal mount mates to all major manufacturer's hole patterns
- All Mountings are 3G vibration rated per ANSI C136.31
- Adjustable fixture tilt from 0-45 degrees provides flexibility to optimize lighting performance

Electrical

- Standard surge protection is 20kV/10kA "Extreme Level" per ANSI C136.2
- LED light engines are rated > 100,000 at 25°C, L70
- Electronic driver has an expected life of > 100,000 hours at 25°C
- Rated for -40°C / (-40°F) minimum ambient
- Programmable electronic driver with 0-10V control leads
- Driver voltage options: 120-277V 50/60 Hz and 347 50/60 Hz and 480V 50/60 Hz
- Luminaire ships with a 0-10v dimmable driver. Luminaire is continuous and step dimming capable via AO option or controls installed on P7 photocontrol receptacle option.

Optical

- Performance is comparable to 150-400 watt HPS or 175-1,000 watt MH
- IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation
- IP66 rated optics

- Molded Silicone optics: Area (Type 5) (AR), Forward Throw (FT), Medium Roadway (MR), Narrow Roadway (NR) and Wide Roadway (WR)
- Borosilicate glass refractor optics: Area (AG), Forward Throw (FG), Medium Roadway (MG), Narrow Roadway (NG) and Wide Roadway (WG)
- 3000K, 4000K and 5000K CCT, 70 CRI
- Optional Uplight Skirt (US) when used with refractor ensures zero uplight above 90°
- House side shield (HSS), light trespass shield and option available
- Wire guard kit option available

Controls

- 7 pin NEMA photocontrol receptacle
- Premium solid-state locking-style photocontrol (PCSS) – 10 year rated life
- Extreme long life solid state locking-style photocontrol (PCLL) – 20 year rated life
- Field adjustable output
- nLight Air motion and daylight sensor
- Programmable motion and daylight sensor

Certification & Standards

- CSA Certified to US and Canadian standards
- Suitable for operation in an ambient temperature up to 40°C / 104°F for standard product
- Designlights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN ACT

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

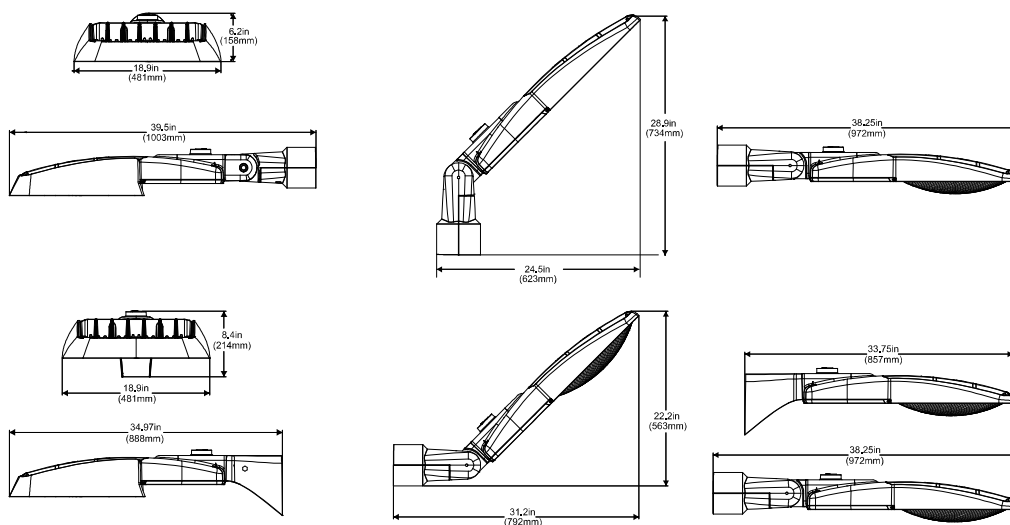
Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C



DIMENSIONAL DATA



Mounting/Optic	Tilt	Weight	EPA
VH	0°	35 lbs.	1.64 sq. ft.
VH with Refractor & US		44 lbs.	
VH	45°	35 lbs.	2.85 sq. ft.
VH with Refractor & US		44 lbs.	
UN	0°	31 lbs.	1.64 sq. ft.
UN with Refractor & US		38 lbs.	

MGLEDM

Mongoose Medium LED



ORDERING INFORMATION

Example: MGLEDM P2 40K MVOLT FT UN GRSD

Series	LED performance package	Color temperature	Voltage	Optics
MGLEDM Mongoose Medium	P1 15,400 Lumens P2 19,000 Lumens P3 22,400 Lumens P4 25,800 Lumens P5 28,900 Lumens P6 31,900 Lumens P7 35,100 Lumens P8 38,000 Lumens	30K 3,000 K CCT 40K 4,000 K CCT 50K 5,000 K CCT	MVOLT Auto-sensing voltage (120 thru 277) 347 347 Volt 480 480 Volt	AG Area with Refractor AR Area FG Forward Throw with Refractor FT Forward Throw MG Medium Roadway with Refractor MR Medium Roadway NG Narrow Roadway with Refractor NR Narrow Roadway WG Wide Roadway with Refractor WR Wide Roadway

Mounting	Super Durable Paint	Options
VH Vertical Tenon/ Horizontal Arm UN Universal (Rd. & Sq)	GRSD Vitraccoat Gray GHSD Vitraccoat Graphite BKSD Vitraccoat Black GNSD Vitraccoat Green WHSD Vitraccoat White BZSD Vitraccoat Bronze DDBSD Vitraccoat Dark Bronze	<u>Adjustable/Programmable Options</u> AO Field Adjustable Output <u>Control Options</u> PCLL DTL Extreme Long Life Twistlock Photocontrol for Solid State (20 year rated life) PCSS DSS Premium Twistlock Photocontrol for Solid State (10 year rated life) POC2 ¹ Programmable occ. and daylight sensor, for mounting applications up to 20' POC4 ¹ Programmable occ. and daylight sensor, for mounting applications between 20' & 40' RSDGR nLight Air Occ. and daylight sensor

<u>NEMA Label Options</u>
NL ² NEMA LABEL
<u>NEMA Receptacle Options</u>
PR7 7-pin Photocontrol Receptacle
<u>Shielding Options</u>
US Uplight Skirt
HSS House Side Shield
<u>Shorting Cap Option</u>
SH SHORTING CAP

Accessories: Order as separate catalog number.	
<u>Wire Guard Kit</u>	
MGLEDM WG	Mongoose Medium Wire Guard Kit
<u>Light Trespass Shield</u>	
MGLEDM LTS	Mongoose Medium Light Trespass Shield
<u>Uplight Skirt</u>	
MGLEDM US GRSD	Mongoose Medium Uplight Skirt, Vitraccoat Gray
MGLEDM US GHSD	Mongoose Medium Uplight Skirt, Vitraccoat Graphite
MGLEDM US BKSD	Mongoose Medium Uplight Skirt, Vitraccoat Black
MGLEDM US GNSD	Mongoose Medium Uplight Skirt, Vitraccoat Green
MGLEDM US WHSD	Mongoose Medium Uplight Skirt, Vitraccoat White
MGLEDM US BZSD	Mongoose Medium Uplight Skirt, Vitraccoat Bronze
MGLEDM US DDBSD	Mongoose Medium Uplight Skirt, Vitraccoat Dark Bronze
<u>House Side Shield</u>	
MGLEDM HSS	Mongoose Medium House Side Shield

- Notes**
- For custom programming of the sensor, a wireless handheld configuration tool, Part No. FSIR-100 should be purchased, either from Legrand, or from Acuity (by special request).
 - NL not available with POC2, POC4 or RSDGR.

MOUNTING OPTIONS



Vertical Tenon/Horizontal Arm Mount – VH
Attaches to 2" vertical tenon or horizontal mast arm (2 3/8" O.D.)



Universal Mount – UN
Attaches to square or 3" minimum round pole



OPTIONS MATRIX

Mounting		SELECTED OPTION (start here)							
		A0	PR7	PCLL	PCSS	POC2	POC4	RSDGR	SH
Controls	A0		Y	Y	Y	N	N	N	Y
	PR7	Y		Y	Y	N	N	N	Y
	PCLL	Y	Y		N	N	N	N	N
	PCSS	Y	Y	N		N	N	N	N
	POC2	N	N	N	N		N	N	N
	POC4	N	N	N	N	N		N	N
	RSDGR	N	N	N	N	N	N		N
	SH	Y	Y	N	N	N	N	N	
Voltage	MVOLT	Y	Y	Y	Y	Y	Y	Y	Y
	347	Y	Y	Y	N	Y	Y	Y	Y
	480	Y	Y	Y	N	Y	Y	Y	Y
Performance Packages	P1	Y	Y	Y	Y	Y	Y	Y	Y
	P2	Y	Y	Y	Y	Y	Y	Y	Y
	P3	Y	Y	Y	Y	Y	Y	Y	Y
	P4	Y	Y	Y	Y	Y	Y	Y	Y
	P5	Y	Y	Y	Y	Y	Y	Y	Y
	P6	Y	Y	Y	Y	Y	Y	Y	Y
	P7	Y	Y	Y	Y	Y	Y	Y	Y
	P8	Y	Y	Y	Y	Y	Y	Y	Y

Y = Valid Option Combination

N = Combination Not available

LUMEN AMBIENT TEMPERATURE (LAT) MULTIPLIERS

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Temperature		Ambient Temperature (°C) Lumen Multiplier							
°C	°F	P1	P2	P3	P4	P5	P6	P7	P8
0	32	1.03	1.03	1.03	1.03	1.04	1.04	1.04	1.05
5	41	1.02	1.02	1.03	1.03	1.03	1.03	1.03	1.04
10	50	1.02	1.02	1.02	1.02	1.02	1.02	1.03	1.03
15	59	1.01	1.01	1.01	1.01	1.02	1.02	1.02	1.02
20	68	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
25	77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

PERFORMANCE DATA

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P1	AG	105	15,680	149	4	2	2	16,129	154	4	2	2	16,329	156	4	2	2	0.97	0.97	0.96
	AR		16,915	161	4	0	2	17,400	166	4	0	2	17,616	168	4	0	2			
	FG		14,519	138	2	3	3	14,935	142	2	3	3	15,120	144	3	3	3			
	FT		15,763	150	2	0	3	16,215	154	2	0	3	16,416	156	2	0	3			
	MG		15,064	143	2	2	2	15,496	148	2	2	2	15,687	149	3	2	2			
	MR		16,193	154	2	0	2	16,657	159	3	0	3	16,863	161	3	0	3			
	NG		15,292	146	3	2	2	15,731	150	3	2	2	15,925	152	3	2	2			
	NR		16,326	155	3	0	2	16,794	160	3	0	2	17,002	162	3	0	2			
	WG		14,577	139	3	2	3	14,994	143	3	2	3	15,180	145	3	2	3			
	WR		15,746	150	3	0	3	16,198	154	3	0	3	16,398	156	3	0	3			
P2	AG	126	19,225	153	4	2	2	19,776	157	4	2	2	20,021	159	4	3	2	0.97	0.97	0.96
	AR		20,740	165	4	0	2	21,335	169	4	0	2	21,599	171	4	0	2			
	FG		17,802	141	3	3	3	18,313	145	3	3	4	18,539	147	3	3	4			
	FT		19,328	153	3	0	4	19,882	158	3	0	4	20,128	160	3	0	4			
	MG		18,470	147	3	2	3	19,000	151	3	2	3	19,235	153	3	2	3			
	MR		19,854	158	3	0	3	20,423	162	3	0	3	20,676	164	3	0	3			
	NG		18,750	149	3	2	2	19,288	153	3	2	2	19,527	155	3	2	3			
	NR		20,018	159	3	0	2	20,592	163	3	0	2	20,847	165	3	0	2			
	WG		17,873	142	3	3	3	18,385	146	3	3	3	18,613	148	3	3	3			
	WR		19,307	153	3	0	3	19,860	158	3	0	3	20,106	160	3	0	3			
P3	AG	155	22,726	147	4	3	2	23,377	151	4	3	2	23,667	153	4	3	2	0.97	0.96	0.96
	AR		24,517	158	4	0	2	25,219	163	5	0	3	25,532	165	5	0	3			
	FG		21,044	136	3	3	4	21,647	140	3	3	4	21,915	141	3	3	4			
	FT		22,847	147	3	0	4	23,502	152	3	0	4	23,793	154	3	0	4			
	MG		21,833	141	3	3	3	22,459	145	3	3	3	22,737	147	3	3	3			
	MR		23,469	151	3	0	3	24,142	156	3	0	3	24,441	158	3	0	3			
	NG		22,164	143	3	2	3	22,799	147	3	2	3	23,082	149	3	2	3			
	NR		23,663	153	3	0	3	24,341	157	3	0	3	24,643	159	3	0	3			
	WG		21,127	136	3	3	3	21,732	140	3	3	3	22,001	142	3	3	3			
	WR		22,822	147	3	0	3	23,476	151	3	0	3	23,767	153	3	0	3			
P4	AG	180	26,107	145	4	3	2	26,855	149	4	3	2	27,188	151	4	3	2	0.97	0.96	0.95
	AR		28,164	156	5	0	3	28,972	161	5	0	3	29,330	163	5	0	3			
	FG		24,175	134	3	3	4	24,868	138	3	3	4	25,176	140	3	3	4			
	FT		26,246	146	3	0	5	26,998	150	3	0	5	27,333	152	3	0	5			
	MG		25,082	139	3	3	3	25,800	143	3	3	3	26,120	145	3	3	3			
	MR		26,961	150	3	0	3	27,734	154	3	0	3	28,077	156	3	0	3			
	NG		25,462	141	3	3	3	26,192	146	3	3	3	26,516	147	3	3	3			
	NR		27,184	151	3	0	3	27,963	155	3	0	3	28,309	157	3	0	3			
	WG		24,270	135	3	3	3	24,966	139	3	3	3	25,275	140	3	3	3			
	WR		26,218	146	3	0	3	26,969	150	3	0	3	27,303	152	3	0	3			

PERFORMANCE DATA (continued)

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P5	AG	206	29,340	142	4	3	2	30,181	147	5	3	3	30,555	148	5	3	3	0.96	0.96	0.95
	AR		31,653	154	5	0	3	32,560	158	5	0	3	32,963	160	5	0	3			
	FG		27,169	132	3	3	5	27,947	136	3	3	5	28,294	137	3	3	5			
	FT		29,497	143	3	0	5	30,342	147	3	0	5	30,718	149	3	0	5			
	MG		28,188	137	3	3	3	28,996	141	3	3	3	29,355	143	3	3	3			
	MR		30,300	147	3	0	3	31,169	151	3	0	3	31,555	153	3	0	3			
	NG		28,615	139	4	3	3	29,436	143	4	3	3	29,800	145	4	3	3			
	NR		30,550	148	4	0	3	31,426	153	4	0	3	31,815	154	4	0	3			
	WG		27,276	132	3	3	3	28,058	136	3	3	3	28,405	138	3	3	3			
	WR		29,465	143	3	0	3	30,309	147	3	0	3	30,685	149	3	0	3			
	WR		29,465	143	3	0	3	30,309	147	3	0	3	30,685	149	3	0	3			
P6	AG	230	32,375	141	5	3	3	33,303	145	5	3	3	33,715	147	5	3	3	0.96	0.95	0.94
	AR		34,926	152	5	0	3	35,927	156	5	0	3	36,372	158	5	0	3			
	FG		29,978	130	3	3	5	30,838	134	3	3	5	31,220	136	3	3	5			
	FT		32,547	142	3	0	5	33,480	146	3	0	5	33,894	147	3	0	5			
	MG		31,103	135	3	3	3	31,995	139	3	3	3	32,391	141	3	3	3			
	MR		33,434	145	3	0	4	34,392	150	3	0	4	34,818	151	3	0	4			
	NG		31,575	137	4	3	3	32,480	141	4	3	3	32,882	143	4	3	3			
	NR		33,710	147	4	0	3	34,676	151	4	0	3	35,105	153	4	0	3			
	WG		30,097	131	4	3	4	30,960	135	4	3	4	31,343	136	4	3	4			
	WR		32,512	141	3	0	4	33,444	145	3	0	4	33,858	147	4	0	4			
	WR		32,512	141	3	0	4	33,444	145	3	0	4	33,858	147	4	0	4			
P7	AG	255	35,515	139	5	3	3	36,533	143	5	3	3	36,986	145	5	3	3	0.96	0.95	0.93
	AR		38,314	150	5	0	4	39,412	155	5	0	4	39,900	156	5	0	4			
	FG		32,886	129	3	3	5	33,829	133	4	3	5	34,248	134	4	3	5			
	FT		35,704	140	3	0	5	36,728	144	4	0	5	37,183	146	4	0	5			
	MG		34,120	134	3	3	3	35,098	138	3	3	3	35,533	139	4	3	3			
	MR		36,677	144	3	0	4	37,728	148	3	0	4	38,195	150	3	0	4			
	NG		34,638	136	4	3	3	35,630	140	4	3	3	36,072	141	4	3	3			
	NR		36,980	145	4	0	3	38,040	149	4	0	3	38,511	151	4	0	3			
	WG		33,017	129	4	3	4	33,963	133	4	3	4	34,383	135	4	3	4			
	WR		35,666	140	4	0	4	36,688	144	4	0	4	37,142	146	4	0	4			
	WR		35,666	140	4	0	4	36,688	144	4	0	4	37,142	146	4	0	4			
P8	AG	280	38,510	138	5	3	3	39,614	141	5	3	3	40,104	143	5	3	3	0.95	0.93	0.92
	AR		41,545	148	5	0	4	42,735	153	5	0	4	43,265	155	5	0	4			
	FG		35,659	127	4	3	5	36,681	131	4	3	5	37,136	133	4	3	5			
	FT		38,715	138	4	0	5	39,824	142	4	0	5	40,318	144	4	0	5			
	MG		36,997	132	4	3	3	38,058	136	4	3	3	38,529	138	4	3	3			
	MR		39,770	142	4	0	4	40,909	146	4	0	4	41,416	148	4	0	4			
	NG		37,558	134	4	3	3	38,635	138	4	3	3	39,113	140	4	3	3			
	NR		40,098	143	4	0	3	41,247	147	4	0	3	41,758	149	4	0	3			
	WG		35,800	128	4	3	4	36,827	132	4	3	4	37,283	133	4	3	4			
	WR		38,673	138	4	0	4	39,782	142	4	0	4	40,274	144	4	0	4			
	WR		38,673	138	4	0	4	39,782	142	4	0	4	40,274	144	4	0	4			

PERFORMANCE DATA — SKIRT OPTION

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P1	AG	105	14,813	141	3	0	2	15,237	145	3	0	2	15,426	147	3	0	2	0.97	0.97	0.96
	AR		16,041	153	4	0	2	16,500	157	4	0	2	16,705	159	4	0	2			
	FG		13,647	130	3	0	2	14,038	134	3	0	2	14,212	135	3	0	2			
	FT		14,662	140	2	0	2	15,082	144	2	0	2	15,269	145	2	0	2			
	MG		14,623	139	2	0	2	15,042	143	3	0	2	15,228	145	3	0	2			
	MR		15,485	147	2	0	2	15,928	152	2	0	2	16,126	154	2	0	2			
	NG		14,965	143	3	0	2	15,394	147	3	0	2	15,585	148	3	0	2			
	NR		15,868	151	3	0	2	16,323	155	3	0	2	16,525	157	3	0	2			
	WG		13,943	133	3	0	2	14,343	137	3	0	2	14,521	138	3	0	2			
	WR		14,571	139	3	0	2	14,989	143	3	0	2	15,174	145	3	0	2			
P2	AG	126	18,162	144	4	0	2	18,683	148	4	0	2	18,914	150	4	0	2	0.97	0.97	0.96
	AR		19,668	156	4	0	2	20,232	161	4	0	2	20,482	163	4	0	2			
	FG		16,733	133	3	0	2	17,212	137	3	0	2	17,426	138	3	0	2			
	FT		17,978	143	3	0	3	18,493	147	3	0	3	18,722	149	3	0	3			
	MG		17,929	142	3	0	2	18,443	146	3	0	2	18,672	148	3	0	2			
	MR		18,986	151	3	0	2	19,530	155	3	0	3	19,772	157	3	0	3			
	NG		18,349	146	3	0	2	18,875	150	3	0	2	19,109	152	3	0	2			
	NR		19,456	154	3	0	2	20,014	159	3	0	2	20,262	161	3	0	2			
	WG		17,097	136	3	0	3	17,587	140	3	0	3	17,804	141	3	0	3			
	WR		17,866	142	3	0	2	18,378	146	3	0	3	18,606	148	3	0	3			
P3	AG	155	21,469	139	4	0	2	22,084	142	4	0	2	22,358	144	4	0	2	0.97	0.96	0.96
	AR		23,249	150	4	0	2	23,915	154	4	0	2	24,211	156	4	0	2			
	FG		19,779	128	3	0	2	20,346	131	3	0	3	20,598	133	3	0	3			
	FT		21,251	137	3	0	3	21,860	141	3	0	3	22,131	143	3	0	3			
	MG		21,194	137	3	0	3	21,801	141	3	0	3	22,071	142	3	0	3			
	MR		22,443	145	3	0	3	23,086	149	3	0	3	23,372	151	3	0	3			
	NG		21,690	140	3	0	2	22,312	144	3	0	2	22,588	146	3	0	2			
	NR		22,999	148	3	0	2	23,658	153	3	0	2	23,951	155	3	0	2			
	WG		20,209	130	3	0	3	20,788	134	3	0	3	21,046	136	3	0	3			
	WR		21,119	136	3	0	3	21,724	140	3	0	3	21,993	142	3	0	3			
P4	AG	180	24,663	137	4	0	2	25,370	141	4	0	2	25,685	143	4	0	2	0.97	0.96	0.95
	AR		26,708	148	4	0	2	27,474	153	4	0	2	27,814	155	4	0	2			
	FG		22,722	126	3	0	3	23,374	130	3	0	3	23,663	131	3	0	3			
	FT		24,413	136	3	0	3	25,113	140	3	0	3	25,424	141	3	0	3			
	MG		24,347	135	3	0	3	25,045	139	3	0	3	25,355	141	3	0	3			
	MR		25,782	143	3	0	3	26,521	147	3	0	3	26,850	149	3	0	3			
	NG		24,917	138	3	0	2	25,631	142	3	0	2	25,949	144	4	0	2			
	NR		26,421	147	3	0	2	27,178	151	3	0	2	27,515	153	3	0	2			
	WG		23,216	129	3	0	3	23,882	133	3	0	3	24,177	134	3	0	3			
	WR		24,261	135	3	0	3	24,957	139	3	0	3	25,266	140	3	0	3			

PERFORMANCE DATA — UPLIGHT SKIRT OPTION (continued)

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P5	AG	206	27,718	135	4	0	2	28,513	138	4	0	2	28,866	140	4	0	2	0.96	0.96	0.95
	AR		30,016	146	5	0	3	30,876	150	5	0	3	31,259	152	5	0	3			
	FG		25,536	124	3	0	3	26,268	128	3	0	3	26,594	129	3	0	3			
	FT		27,437	133	3	0	4	28,223	137	3	0	4	28,572	139	3	0	4			
	MG		27,362	133	3	0	3	28,147	137	3	0	3	28,495	138	3	0	3			
	MR		28,975	141	3	0	3	29,806	145	3	0	3	30,175	146	3	0	3			
	NG		28,003	136	4	0	2	28,806	140	4	0	2	29,163	142	4	0	2			
	NR		29,693	144	4	0	2	30,544	148	4	0	2	30,922	150	4	0	2			
	WG		26,091	127	3	0	3	26,839	130	3	0	3	27,172	132	3	0	3			
	WR		27,266	132	3	0	3	28,048	136	3	0	3	28,395	138	3	0	3			
P6	AG	230	30,585	133	5	0	2	31,461	137	5	0	2	31,851	138	5	0	2	0.96	0.95	0.94
	AR		33,120	144	5	0	3	34,069	148	5	0	3	34,491	150	5	0	3			
	FG		28,177	123	3	0	3	28,985	126	3	0	3	29,344	128	3	0	3			
	FT		30,274	132	3	0	4	31,142	135	3	0	4	31,527	137	3	0	4			
	MG		30,192	131	3	0	3	31,058	135	3	0	3	31,442	137	3	0	3			
	MR		31,972	139	3	0	3	32,888	143	3	0	3	33,296	145	3	0	3			
	NG		30,899	134	4	0	2	31,785	138	4	0	2	32,178	140	4	0	2			
	NR		32,764	142	4	0	2	33,703	147	4	0	3	34,120	148	4	0	3			
	WG		28,790	125	4	0	3	29,615	129	4	0	3	29,982	130	4	0	3			
	WR		30,086	131	3	0	3	30,948	135	3	0	3	31,331	136	4	0	3			
P7	AG	255	33,551	132	5	0	3	34,513	135	5	0	3	34,941	137	5	0	3	0.96	0.95	0.93
	AR		36,333	142	5	0	3	37,374	147	5	0	3	37,837	148	5	0	3			
	FG		30,911	121	4	0	4	31,797	125	4	0	4	32,190	126	4	0	4			
	FT		33,211	130	4	0	4	34,163	134	4	0	4	34,586	136	4	0	4			
	MG		33,121	130	4	0	3	34,070	134	4	0	3	34,492	135	4	0	3			
	MR		35,073	138	3	0	3	36,079	141	4	0	3	36,526	143	4	0	3			
	NG		33,897	133	4	0	2	34,868	137	4	0	3	35,300	138	4	0	3			
	NR		35,942	141	4	0	3	36,972	145	4	0	3	37,430	147	4	0	3			
	WG		31,582	124	4	0	3	32,488	127	4	0	3	32,890	129	4	0	3			
	WR		33,004	129	4	0	3	33,950	133	4	0	3	34,371	135	4	0	3			
P8	AG	280	36,380	130	5	0	3	37,423	134	5	0	3	37,887	135	5	0	3	0.95	0.93	0.92
	AR		39,396	141	5	0	3	40,526	145	5	0	3	41,027	147	5	0	3			
	FG		33,517	120	4	0	4	34,478	123	4	0	4	34,905	125	4	0	4			
	FT		36,011	129	4	0	4	37,043	132	4	0	4	37,502	134	4	0	4			
	MG		35,914	128	4	0	3	36,943	132	4	0	3	37,401	134	4	0	3			
	MR		38,031	136	4	0	4	39,121	140	4	0	4	39,605	141	4	0	4			
	NG		36,755	131	4	0	3	37,808	135	4	0	3	38,276	137	4	0	3			
	NR		38,972	139	4	0	3	40,089	143	4	0	3	40,586	145	4	0	3			
	WG		34,245	122	4	0	3	35,227	126	4	0	3	35,663	127	4	0	3			
	WR		35,787	128	4	0	4	36,813	131	4	0	4	37,269	133	4	0	4			

PERFORMANCE DATA — HOUSE SIDE SHIELD OPTION

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P1	AG	105	6,999	67	1	2	2	7,199	69	1	2	2	7,288	69	1	2	2	0.97	0.97	0.96
	AR		9,980	95	1	2	2	10,266	98	1	2	2	10,393	99	1	2	2			
	FG		9,965	95	1	2	3	10,251	98	1	2	3	10,378	99	1	2	3			
	FT		11,584	110	1	2	3	11,916	113	1	2	3	12,064	115	1	2	3			
	MG		11,335	108	1	2	2	11,660	111	1	2	2	11,804	112	1	2	2			
	MR		12,900	123	1	2	2	13,270	126	1	2	2	13,435	128	1	2	2			
	NG		13,205	126	1	2	2	13,584	129	1	2	2	13,752	131	1	2	2			
	NR		13,221	126	1	2	2	13,599	130	1	2	2	13,768	131	1	2	2			
	WG		10,624	101	1	2	2	10,928	104	1	2	2	11,064	105	1	2	2			
	WR		12,269	117	2	2	3	12,621	120	2	2	3	12,777	122	2	2	3			
P2	AG	126	8,581	68	1	2	2	8,827	70	1	2	2	8,937	71	1	2	2	0.97	0.97	0.96
	AR		12,237	97	1	2	2	12,588	100	1	2	2	12,743	101	1	2	2			
	FG		12,219	97	1	3	3	12,569	100	1	3	3	12,725	101	1	3	3			
	FT		14,204	113	1	2	3	14,611	116	1	3	3	14,792	117	1	3	3			
	MG		13,898	110	1	2	2	14,297	113	1	2	2	14,474	115	1	2	2			
	MR		15,818	126	2	2	2	16,271	129	2	2	2	16,473	131	2	2	2			
	NG		16,191	129	1	2	3	16,655	132	1	2	3	16,861	134	1	2	3			
	NR		16,210	129	1	2	3	16,675	132	1	2	3	16,881	134	1	2	3			
	WG		13,026	103	1	2	3	13,400	106	2	2	3	13,566	108	2	2	3			
	WR		15,043	119	2	2	3	15,475	123	2	2	3	15,666	124	2	2	3			
P3	AG	155	10,144	65	1	2	2	10,434	67	1	2	2	10,564	68	1	2	2	0.97	0.96	0.96
	AR		14,465	93	1	2	3	14,879	96	1	2	3	15,064	97	1	2	3			
	FG		14,443	93	1	3	3	14,857	96	1	3	3	15,041	97	1	3	3			
	FT		16,790	108	1	3	3	17,271	111	1	3	3	17,485	113	1	3	3			
	MG		16,429	106	2	2	2	16,900	109	2	2	3	17,109	110	2	2	3			
	MR		18,698	121	2	2	3	19,233	124	2	2	3	19,472	126	2	2	3			
	NG		19,139	123	2	2	3	19,688	127	2	3	3	19,931	129	2	3	3			
	NR		19,161	124	1	2	3	19,711	127	1	2	3	19,955	129	1	2	3			
	WG		15,398	99	2	2	3	15,839	102	2	3	3	16,035	103	2	3	3			
	WR		17,782	115	2	2	3	18,292	118	2	2	3	18,518	119	2	2	3			
P4	AG	180	11,653	65	1	2	2	11,987	67	1	2	2	12,135	67	1	2	2	0.97	0.96	0.95
	AR		16,617	92	1	2	3	17,093	95	1	2	3	17,305	96	1	2	3			
	FG		16,592	92	1	3	3	17,068	95	1	3	3	17,279	96	1	3	3			
	FT		19,288	107	1	3	4	19,841	110	1	3	4	20,086	112	1	3	4			
	MG		18,873	105	2	3	3	19,414	108	2	3	3	19,655	109	2	3	3			
	MR		21,480	119	2	2	3	22,095	123	2	2	3	22,369	124	2	2	3			
	NG		21,987	122	2	3	3	22,617	126	2	3	3	22,897	127	2	3	3			
	NR		22,012	122	2	2	3	22,643	126	2	2	3	22,924	127	2	2	3			
	WG		17,689	98	2	3	3	18,196	101	2	3	3	18,421	102	2	3	3			
	WR		20,428	113	2	2	3	21,014	117	2	2	3	21,274	118	2	2	3			

PERFORMANCE DATA — HOUSE SIDE SHIELD OPTION (continued)

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P5	AG	206	13,096	64	1	2	2	13,472	65	1	2	2	13,638	66	1	2	2	0.96	0.96	0.95
	AR		18,675	91	1	3	3	19,210	93	1	3	3	19,448	94	1	3	3			
	FG		18,647	91	1	3	4	19,182	93	1	3	4	19,419	94	1	3	4			
	FT		21,677	105	1	3	4	22,298	108	1	3	4	22,574	110	1	3	4			
	MG		21,211	103	2	3	3	21,819	106	2	3	3	22,089	107	2	3	3			
	MR		24,140	117	2	2	3	24,832	121	2	2	3	25,139	122	2	2	3			
	NG		24,710	120	2	3	3	25,418	123	2	3	3	25,733	125	2	3	3			
	NR		24,739	120	2	3	3	25,448	124	2	3	3	25,763	125	2	3	3			
	WG		19,880	97	2	3	3	20,450	99	2	3	3	20,703	101	2	3	3			
	WR		22,958	111	2	2	3	23,616	115	2	2	3	23,909	116	3	2	3			
P6	AG	230	14,451	63	1	3	3	14,865	65	1	3	3	15,049	65	1	3	3	0.96	0.95	0.94
	AR		20,606	90	1	3	3	21,197	92	1	3	3	21,459	93	1	3	4			
	FG		20,576	89	1	3	4	21,165	92	1	3	4	21,428	93	1	3	4			
	FT		23,918	104	1	3	4	24,604	107	1	3	4	24,909	108	1	3	4			
	MG		23,404	102	2	3	3	24,075	105	2	3	3	24,373	106	2	3	3			
	MR		26,636	116	2	2	3	27,400	119	2	2	3	27,739	121	2	2	4			
	NG		27,265	119	2	3	3	28,047	122	2	3	3	28,394	123	2	3	3			
	NR		27,297	119	2	3	3	28,079	122	2	3	3	28,427	124	2	3	3			
	WG		21,936	95	2	3	3	22,564	98	2	3	3	22,844	99	2	3	3			
	WR		25,332	110	3	2	3	26,058	113	3	2	3	26,381	115	3	2	4			
P7	AG	255	15,852	62	1	3	3	16,307	64	1	3	3	16,509	65	1	3	3	0.96	0.95	0.93
	AR		22,605	89	1	3	4	23,253	91	1	3	4	23,541	92	1	3	4			
	FG		22,572	89	2	3	4	23,219	91	2	3	4	23,506	92	2	3	4			
	FT		26,239	103	1	3	4	26,991	106	1	3	4	27,325	107	2	3	4			
	MG		25,675	101	2	3	3	26,411	104	2	3	3	26,738	105	2	3	3			
	MR		29,220	115	2	3	4	30,058	118	3	3	4	30,430	119	3	3	4			
	NG		29,910	117	2	3	3	30,767	121	2	3	3	31,148	122	2	3	3			
	NR		29,945	117	2	3	3	30,803	121	2	3	3	31,185	122	2	3	3			
	WG		24,063	94	2	3	3	24,753	97	2	3	3	25,060	98	2	3	3			
	WR		27,790	109	3	3	4	28,586	112	3	3	4	28,940	113	3	3	4			
P8	AG	280	17,189	61	1	3	3	17,682	63	1	3	3	17,901	64	1	3	3	0.95	0.93	0.92
	AR		24,511	88	1	3	4	25,214	90	1	3	4	25,526	91	1	3	4			
	FG		24,475	87	2	3	4	25,176	90	2	3	4	25,488	91	2	3	4			
	FT		28,451	102	2	3	4	29,266	105	2	3	4	29,629	106	2	3	4			
	MG		27,840	99	2	3	3	28,638	102	2	3	3	28,992	104	2	3	3			
	MR		31,684	113	3	3	4	32,592	116	3	3	4	32,996	118	3	3	4			
	NG		32,432	116	2	3	3	33,362	119	2	3	4	33,775	121	2	3	4			
	NR		32,470	116	2	3	3	33,401	119	2	3	3	33,814	121	2	3	3			
	WG		26,092	93	2	3	3	26,840	96	3	3	4	27,173	97	3	3	4			
	WR		30,133	108	3	3	4	30,996	111	3	3	4	31,380	112	3	3	4			

PERFORMANCE DATA — UPLIGHT SKIRT + HOUSE SIDE SHIELD OPTION

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P1	AG	105	8,036	77	1	0	2	8,266	79	1	0	2	8,368	80	1	0	2	0.97	0.97	0.96
	AR		9,275	88	1	0	2	9,541	91	1	0	2	9,659	92	1	0	2			
	FG		8,948	85	1	0	2	9,204	88	1	0	2	9,318	89	1	0	2			
	FT		10,422	99	1	0	2	10,720	102	1	0	2	10,853	103	1	0	2			
	MG		10,580	101	1	0	2	10,884	104	1	0	2	11,018	105	1	0	2			
	MR		12,257	117	1	0	2	12,609	120	1	0	2	12,765	122	1	0	2			
	NG		11,030	105	1	0	2	11,347	108	1	0	2	11,487	109	1	0	2			
	NR		12,554	120	1	0	2	12,914	123	1	0	2	13,074	125	1	0	2			
	WG		9,525	91	1	0	2	9,798	93	1	0	2	9,919	94	1	0	2			
	WR		10,983	105	1	0	2	11,298	108	1	0	2	11,438	109	1	0	2			
P2	AG	126	9,853	78	1	0	2	10,135	80	1	0	2	10,261	81	1	0	2	0.97	0.97	0.96
	AR		11,373	90	1	0	2	11,699	93	1	0	2	11,844	94	1	0	2			
	FG		10,971	87	1	0	2	11,286	90	1	0	2	11,425	91	1	0	2			
	FT		12,778	101	1	0	2	13,145	104	1	0	2	13,307	106	1	0	2			
	MG		12,973	103	1	0	2	13,345	106	1	0	2	13,510	107	1	0	2			
	MR		15,029	119	1	0	2	15,460	123	1	0	2	15,651	124	1	0	2			
	NG		13,525	107	1	0	2	13,912	110	1	0	2	14,085	112	1	0	2			
	NR		15,393	122	1	0	2	15,835	126	1	0	2	16,031	127	1	0	2			
	WG		11,678	93	1	0	2	12,013	95	1	0	2	12,162	97	1	0	2			
	WR		13,467	107	2	0	2	13,853	110	2	0	2	14,024	111	2	0	2			
P3	AG	155	11,647	75	1	0	2	11,981	77	1	0	2	12,129	78	1	0	2	0.97	0.96	0.96
	AR		13,444	87	1	0	2	13,829	89	1	0	2	14,000	90	1	0	2			
	FG		12,969	84	1	0	2	13,340	86	1	0	2	13,506	87	1	0	2			
	FT		15,105	97	1	0	3	15,538	100	1	0	3	15,730	101	1	0	3			
	MG		15,335	99	1	0	2	15,774	102	1	0	2	15,970	103	2	0	2			
	MR		17,765	115	2	0	2	18,275	118	2	0	2	18,501	119	2	0	2			
	NG		15,987	103	1	0	2	16,445	106	1	0	2	16,649	107	1	0	2			
	NR		18,196	117	1	0	2	18,718	121	1	0	2	18,949	122	1	0	2			
	WG		13,805	89	2	0	2	14,200	92	2	0	2	14,376	93	2	0	2			
	WR		15,918	103	2	0	2	16,375	106	2	0	2	16,577	107	2	0	2			
P4	AG	180	13,380	74	1	0	2	13,452	75	1	0	2	13,934	77	1	0	2	0.97	0.96	0.95
	AR		15,444	86	1	0	3	15,457	86	1	0	3	16,083	89	1	0	3			
	FG		14,898	83	1	0	2	15,253	85	1	0	2	15,515	86	1	0	2			
	FT		17,352	96	1	0	3	17,705	98	1	0	3	18,071	100	1	0	3			
	MG		17,617	98	2	0	2	17,937	100	2	0	2	18,346	102	2	0	2			
	MR		20,409	113	2	0	3	20,784	115	2	0	3	21,254	118	2	0	3			
	NG		18,366	102	2	0	2	18,649	104	2	0	2	19,126	106	2	0	2			
	NR		20,903	116	2	0	2	21,201	118	2	0	2	21,769	121	2	0	2			
	WG		15,859	88	2	0	2	16,313	91	2	0	2	16,515	92	2	0	2			
	WR		18,287	102	2	0	2	18,617	103	2	0	2	19,044	106	2	0	2			

PERFORMANCE DATA — UPLIGHT SKIRT + HOUSE SIDE SHIELD OPTION (continued)

Performance Package	Distribution	Input Watts	30K (3000K CCT, 70 CRI)					40K (4000K CCT, 70 CRI)					50K (5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	50k Hours	75k Hours	100k Hours
P5	AG	206	15,037	73	1	0	2	15,468	75	1	0	2	15,659	76	1	0	2	0.96	0.96	0.95
	AR		17,356	84	1	0	3	17,854	87	1	0	3	18,075	88	1	0	3			
	FG		16,743	81	2	0	3	17,223	84	2	0	3	17,437	85	2	0	3			
	FT		19,501	95	1	0	3	20,060	97	2	0	3	20,309	99	2	0	3			
	MG		19,798	96	2	0	2	20,366	99	2	0	2	20,618	100	2	0	2			
	MR		22,936	111	2	0	3	23,594	115	2	0	3	23,886	116	2	0	3			
	NG		20,641	100	2	0	2	21,232	103	2	0	2	21,495	104	2	0	2			
	NR		23,492	114	2	0	2	24,166	117	2	0	2	24,465	119	2	0	2			
	WG		17,823	87	2	0	2	18,333	89	2	0	2	18,561	90	2	0	2			
	WR		20,552	100	2	0	2	21,141	103	2	0	3	21,403	104	2	0	3			
P6	AG	230	16,592	72	1	0	2	17,067	74	1	0	2	17,279	75	1	0	2	0.96	0.95	0.94
	AR		19,151	83	1	0	3	19,700	86	1	0	3	19,944	87	1	0	3			
	FG		18,475	80	2	0	3	19,005	83	2	0	3	19,240	84	2	0	3			
	FT		21,518	94	2	0	4	22,135	96	2	0	4	22,409	97	2	0	4			
	MG		21,846	95	2	0	2	22,472	98	2	0	2	22,750	99	2	0	2			
	MR		25,308	110	2	0	3	26,034	113	2	0	3	26,356	115	2	0	3			
	NG		22,775	99	2	0	2	23,428	102	2	0	2	23,718	103	2	0	2			
	NR		25,922	113	2	0	2	26,665	116	2	0	3	26,995	117	2	0	3			
	WG		19,666	86	2	0	2	20,229	88	2	0	2	20,480	89	2	0	2			
	WR		22,677	99	2	0	3	23,327	101	2	0	3	23,616	103	2	0	3			
P7	AG	255	18,201	71	1	0	3	18,723	73	2	0	3	18,955	74	2	0	3	0.96	0.95	0.93
	AR		21,009	82	1	0	3	21,611	85	1	0	3	21,879	86	1	0	3			
	FG		20,267	79	2	0	3	20,848	82	2	0	3	21,106	83	2	0	3			
	FT		23,606	93	2	0	4	24,282	95	2	0	4	24,583	96	2	0	4			
	MG		23,965	94	2	0	3	24,652	97	2	0	3	24,957	98	2	0	3			
	MR		27,763	109	2	0	3	28,559	112	2	0	3	28,913	113	2	0	3			
	NG		24,984	98	2	0	2	25,701	101	2	0	2	26,019	102	2	0	2			
	NR		28,436	112	2	0	3	29,251	115	2	0	3	29,614	116	2	0	3			
	WG		21,573	85	2	0	2	22,192	87	2	0	2	22,467	88	2	0	2			
	WR		24,877	98	2	0	3	25,590	100	2	0	3	25,907	102	2	0	3			
P8	AG	280	19,736	70	2	0	3	20,302	73	2	0	3	20,553	73	2	0	3	0.95	0.93	0.92
	AR		22,781	81	2	0	3	23,434	84	2	0	4	23,724	85	2	0	4			
	FG		21,976	78	2	0	3	22,606	81	2	0	3	22,886	82	2	0	3			
	FT		25,596	91	2	0	4	26,330	94	2	0	4	26,656	95	2	0	4			
	MG		25,986	93	2	0	3	26,730	95	2	0	3	27,062	97	2	0	3			
	MR		30,104	108	2	0	3	30,967	111	2	0	4	31,351	112	3	0	4			
	NG		27,091	97	2	0	2	27,868	100	2	0	2	28,213	101	2	0	2			
	NR		30,834	110	2	0	3	31,718	113	2	0	3	32,111	115	2	0	3			
	WG		23,393	84	2	0	2	24,063	86	2	0	3	24,361	87	2	0	3			
	WR		26,975	96	3	0	3	27,748	99	3	0	3	28,091	100	3	0	3			

DBE Utilization

The Department began its DBE race neutral program January 1, 2000. **Contract specific goals are not placed on Federal/State contracts;** however, the Department has an overall 10.65% DBE goal it must achieve. In order to assist contractors in determining their DBE commitment level, the Department has reviewed the estimates for this letting.

As you prepare your bid, please monitor potential or anticipated DBE utilization for contracts. When the low bidder executes the contract with the Department, information will be requested of the contractor's DBE participation for the project. While the utilization is not mandatory in order to be awarded the project, continuing utilization of DBE firms on contracts supports the success of Florida's DBE Program, and supports contractors' Equal Employment Opportunity and DBE Affirmative Action Programs.

Any project listed as 0% DBE availability does not mean that a DBE may not be used on that project. A 0% DBE availability may have been established due to any of the following reasons: limited identified subcontracting opportunities, minimal contract days, and/or small contract dollar amount. Contractors are encouraged to identify any opportunities to subcontract to DBE's.

Please contact the Equal Opportunity Office at (850) 414-4747 if you have any questions regarding this information.

DBE Reporting

If you are the prime contractor on a project, enter your DBE participation in the Equal Opportunity Compliance system prior to the pre-construction or pre-work conference for all federal and state funded projects. This **will not** become a mandatory part of the contract. It will assist the Department in tracking and reporting planned or estimated DBE utilization. During the contract, the prime contractor is required to report actual payments to DBE and MBE subcontractors through the web-based Equal Opportunity Compliance (EOC) system.

All DBE payments must be reported whether or not you initially planned to utilize the company. In order for our race neutral DBE Program to be successful, your cooperation is imperative. If you have any questions, please contact EOOHelp@dot.state.fl.us.

Bid Opportunity List

The Federal DBE Program requires States to maintain a database of all firms that are participating or attempting to participate on FDOT-assisted contracts. The list must include all firms that bid on prime contracts or bid or quote subcontracts on FDOT-assisted projects, including both **DBE's and non-DBEs**.

Please complete the Bidders Opportunity List through the Equal Opportunity Compliance system within 3 business days of submission of the bid or proposal for ALL subcontractors or sub-consultants who quoted to you for specific project for this letting. The web address to the Equal Opportunity Compliance system is: <https://www.fdot.gov/equalopportunity/eoc.shtm>.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DBE BID PACKAGE INFORMATION

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DBE/AA Plans

Contractors bidding on FDOT contracts are to have an approved DBE Affirmative Action Plan (FDOT Form 275-030-11B) on file with the FDOT Equal Opportunity Office before execution of a contract. DBE/AA Plans must be received with the contractors bid or received by the Equal Opportunity Office prior to the award of the contract.

Plans are approved by the Equal Opportunity Office in accordance with Ch. 14-78, Florida Administrative Code. Plans that do not meet these mandatory requirements may not be approved. Approvals are for a (3) three year period and should be updated at anytime there is a change in the company's DBE Liaison Officer and/or President. Contractors may evidence adoption of the DBE/AA Policy and Plan and/or a change in the designated DBE Liaison officer as follows:

- Print the first page of the document on company stationery ("letterhead") that indicates the company's name, mailing address, phone number, etc.
- Print the company's name in the "____" space; next to "Date" print the month/day/year the policy is being signed; record the signature of the company's Chief Executive Officer, President or Chairperson in the space next to "by" and print the full first and last name and position title of the official signing the policy.
- Print the DBE Liaison's full name, email address, business mailing address and phone number the bottom of email.

E-mail the completed and signed DBE AA Plan to: **eeoforms@dot.state.fl.us**.

The Department will review the policy, update department records and issue a notification of approval or disapproval; a copy of the submitted plan will not be returned to the contractor.

"General Decision Number: FL20230173 01/06/2023

Superseded General Decision Number: FL20220173

State: Florida

Construction Type: Highway

County: Lee County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
0 01/06/2023

SUFL2013-034 08/19/2013

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 12.43 **	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 13.57 **	0.00
ELECTRICIAN.....	\$ 21.92	6.60
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 16.34	0.00
HIGHWAY/PARKING LOT STRIPING: Painter.....	\$ 12.13 **	0.00
IRONWORKER, ORNAMENTAL.....	\$ 13.48 **	0.00
IRONWORKER, REINFORCING.....	\$ 16.39	0.00
IRONWORKER, STRUCTURAL.....	\$ 16.42	0.00
LABORER (Traffic Control Specialist).....	\$ 13.39 **	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 13.89 **	0.00
LABORER: Common or General.....	\$ 11.91 **	0.00
LABORER: Flagger.....	\$ 11.77 **	0.00
LABORER: Grade Checker.....	\$ 16.58	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 12.93 **	0.00
LABORER: Pipelayer.....	\$ 13.63 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 16.10 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 12.88 **	0.00
OPERATOR: Broom/Sweeper.....	\$ 13.69 **	0.00
OPERATOR: Bulldozer.....	\$ 16.50	0.00
OPERATOR: Concrete Finishing Machine.....	\$ 15.44 **	0.00
OPERATOR: Crane.....	\$ 21.69	0.00
OPERATOR: Curb Machine.....	\$ 19.67	0.00
OPERATOR: Drill.....	\$ 14.78 **	0.00
OPERATOR: Forklift.....	\$ 12.58 **	0.00
OPERATOR: Gradall.....	\$ 14.71 **	0.00
OPERATOR: Grader/Blade.....	\$ 18.21	0.00
OPERATOR: Loader.....	\$ 15.64 **	0.00

OPERATOR: Mechanic.....	\$ 17.86	0.00
OPERATOR: Milling Machine.....	\$ 16.71	0.55
OPERATOR: Oiler.....	\$ 17.31	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 17.66	0.00
OPERATOR: Piledriver.....	\$ 17.23	0.00
OPERATOR: Post Driver (Guardrail/Fences).....	\$ 19.35	0.00
OPERATOR: Roller.....	\$ 15.76 **	0.00
OPERATOR: Scraper.....	\$ 11.74 **	0.00
OPERATOR: Screed.....	\$ 16.67	0.00
OPERATOR: Tractor.....	\$ 15.69 **	0.00
OPERATOR: Trencher.....	\$ 16.07 **	0.66
PAINTER: Spray.....	\$ 16.38	0.00
TRAFFIC SIGNALIZATION:		
Traffic Signal Installation.....	\$ 20.74	3.78
TRUCK DRIVER: Dump Truck.....	\$ 15.47 **	0.00
TRUCK DRIVER: Flatbed Truck.....	\$ 14.13 **	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 17.49	0.00
TRUCK DRIVER: Slurry Truck.....	\$ 11.96 **	0.00
TRUCK DRIVER: Water Truck.....	\$ 14.16 **	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"